English

Self-Guard™

Bluetooth and Wi-Fi enabled Portable DVR

Professional Version: SG-1000/ SG-2000/ SG-3000

MANUAL

*EXCEPT FOR SECURITY PURPOSE, **DO NOT** USE THIS PRODUCT FOR ANY OTHER PURPOSES WHICH MAY DISTURB PRIVATE LIFE OF OTHERS.

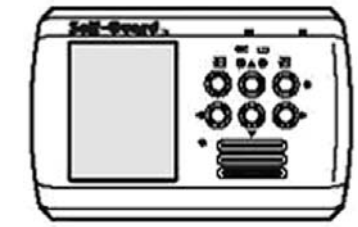
THIS PRODUCT IS REGISTERED WITH ELECTROMAGNETIC WAVE STANDARDS AND CAN BE USED FOR ANY PLACE INCLUDING RESIDENTIAL AREA. BEFORE USING THIS PRODUCT, BE SURE TO READ THE PRECAUTIONS CONTAINED IN THE MANUAL.

STARNEX

"The Future of Wireless Surveillance"

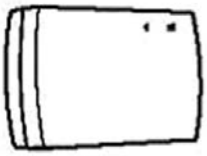
Unpacking

Check to make sure that all of the items shown below are included with your Self-Guard. If something is missing, contact your dealer as soon as possible.

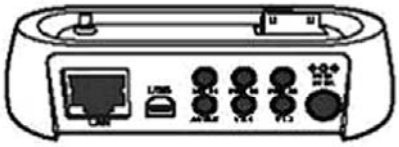


Self-Guard

Rechargeable Lithium Polymer Battery

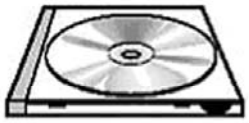


Concealment Case

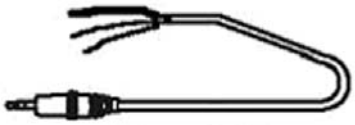


Docking Station

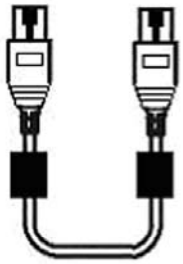
Quick Start Guide



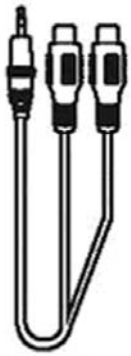
CD-ROM
(Manual & Software)



Sensor Cables

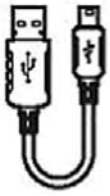


LAN Cable



Video In,
TV Out Cables

A/V Input Cable



USB Cable

AC Adaptor

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(*SG is short for Self-Guard)

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<< Important Notice >>

- ✓ The contents of this manual are subject to change without notice.
- ✓ STARNEX CO., LTD. has the responsibilities as the manufacturer of Self-Guard to tell each distributor that using the Self-Guard unit in the public domain may be in violation of federal privacy statues.
- ✓ STARNEX CO., LTD. assumes no responsibility for any damage or loss resulting from the use of this manual.
- ✓ STARNEX CO., LTD. assumes no responsibility for any loss or claims by third parties which may arise through the use of the Self-Guard.
- ✓ STARNEX CO., LTD. assumes no responsibility for any damage or loss caused by deletion of data as a result of malfunction, repairs, or battery replacement. Be sure to back up all import data on other media to protect against its loss.
- ✓ Note that the example screens and product illustrations shown in this User's Guide may differ somewhat by the screens and configuration of the actual product.
- ✓ The buttons and functions, which are not explained in this manual, are aimed to improve the functions in the future.
- ✓ The features of this product can be changed at any time without notice for the purpose of improvement of the product.

INTRODUCTION

1. Precautions

- General Notice
  - The AC/DC adaptor of this product can be used for both 110V and 220V.
  - Never try to open the case of the Self-Guard or attempt your own repairs. High-voltage internal components create the risk of electric shock when exposed. Always leave maintenance and repair work up to a STARNEX authorized service center.
  - Never look at the sun or other bright light through the LCD screen. Doing so can damage your eyesight.
  - Keep the small parts and accessories of this Self-Guard out of the reach of small children. If swallowed accidentally, contact your physician immediately.
  - Keep the Self-Guard away from water and other liquids, and never let it get wet. Moisture creates the risk of fire and electric shock. Never use the Self-Guard outdoors in the rain or snow, at the seashore or beach, in the bathroom, etc.
  - Should foreign matter or water ever get into the Self-Guard, immediately turn it off. Next, remove the Self-Guard's battery and/or unplug the AC/DC adaptor power cord from the power outlet, and contact your dealer or nearest STARNEX authorized service center. Using the Self-Guard under these conditions creates the risk of fire and electric shock.
  - Should you ever notice smoke or a strange odor coming out of the Self-Guard, immediately turn it off. Next, taking care you do not burn your fingers, remove the Self-Guard's battery and/or unplug the AC/DC adaptor power cord from the power outlet, and contact your dealer or nearest STARNEX authorized service center. Using the Self-Guard under these conditions creates the risk of fire and electric shock. After making sure there is no smoke coming from the Self-Guard, take it to your nearest STARNEX authorized service center for repair. Never attempt your own maintenance.
  - Never use the AC/DC adaptor to power any other device besides this Self-

Guard. Never use any other AC/DC adaptor besides the one that comes with this Self-Guard.

- Never cover the AC/DC adaptor with a quilt, blanket, or other cover while it is in use, and do not use it near a heater.
- At least once a year, unplug the AC/DC adaptor power cord from the power outlet and clean the area around the prongs of the plug. Dust build up around the prongs can create the risk of fire.
- If the Self-Guard's case should ever become cracked due to dropping it or otherwise subjecting it to rough treatment, immediately turn it off. Next, remove the Self-Guard's battery and/or unplug the AC/DC adaptor power cord from the power outlet, and contact your dealer or nearest STARNEX authorized service center.
- Never use the Self-Guard inside of an aircraft or in any other area where its use is prohibited. Doing so creates the risk of accident.
- Physical damage and malfunction of this Self-Guard can cause the data stored in its memory to be deleted. Always keep backup copies of data by transferring them to USB memory stick or USB Hard Disk.
- Never remove the battery, disconnect the AC/DC adaptor from the Self-Guard, or unplug the AC adaptor from the wall socket while a moving image is being recorded. Doing so will not only make storage of the current image impossible, it can also corrupt other image data already stored in the file memory.

◆ When you are not using the external antenna, do not open the cover of this to prevent from getting in other substances into this hole, which may cause problems to the product.

◆ If you want to use a LAN cable which is not provided in the package, then it must be the cable with core.

◆ Test for proper operation before using the Self-Guard

Before using the Self-Guard to record important moving images, make sure you first record a moving image and check the result to ensure that the Self-Guard is configured correctly and operating properly.

◆ Data Error Precautions

Your Self-Guard is manufactured using precision digital components. Any of the following creates the risk of corruption of data in file memory.

- Removing the battery, flash memory card, or USB memory device while the Self-Guard is performing a record or memory access operation.
- Disconnecting the USB cable, removing the Self-Guard from the Docking Station, or disconnecting the AC/DC adaptor from the Docking Station while a data communication operation is being performed.
- Low battery power.
- Other abnormal operations.

Any of the above conditions can cause an error. Follow the instructions provided by this manual to eliminate the cause of the error.

◆ USB Memory Device Precautions

Do not insert or remove USB memory devices from the USB port in the Self-Guard while recording or searching. When you remove the USB memory device from the Self-Guard, you must exit from “RECORD” or “SEARCH” mode, and select “REMOVE USB” from main menu and press [ENT] button. After “REMOVE USB NOW” message appears on the LCD, you can remove the USB memory device from the Self-Guard.

When you back up the Self-Guard’s data to your computer, first, copy the data in the Self-Guard to a USB memory device, and then insert that USB memory device to the USB port in the computer to copy the data in USB memory device to the computer. Use only the USB cable provided in the package. It may cause damage to both the Self-Guard and the computer if you connect the Self-Guard to the computer using other USB cables directly.

When you want to use USB hard-disk, connect AC adaptor to the Self-Guard before connecting the USB hard-disk to the Self-Guard. Otherwise it may cause damage to the Self-Guard.

◆ Flash Memory Card Precautions

Do not insert or remove the memory card from the Self-Guard while recording or searching. If you want to remove the memory card from the Self-Guard,

then you must exit from “RECORD” or “SEARCH” mode, before removing the memory card from the Self-Guard.

◆ **AUTO (POWER) OFF Function**

The Self-Guard automatically turns off the power or goes into the power-savings mode if you don’t press any button for a certain amount of time (1-9 minutes). This does not indicate malfunction of the system.

In “RECORD” and “TRANSMIT” modes, Self-Guard turns off only the LCD, battery status LAMP, and recording status LAMP to save the battery. But, in the rest of the modes except for “RECORD” or “TRANSMIT”, it turns off the power completely. Set the time to 0 to deactivate “AUTO (POWER) OFF” function.

Caution: To maximize the life of the battery, do not turn off “AUTO (POWER) OFF” function.

◆ **Discontinuance of audio sound during playback**

You may encounter discontinuance of audio sound when you playback files.

This does not mean a product defect. Self-Guard is designed and set for the power saving mode to intend longer battery life. Self-Guard goes into sleep mode and does not record when there is no motion detected for selected time (1-9 sec., default 5 sec.) after the very last motion detection. Self-Guard comes out of the sleep mode every 2 seconds to check if there is a motion, and if it does not detect a motion, then it repeats of going into sleep mode and checking any motions in every two seconds. However, it does not record audio when there is audio if there is no motion. This will result in discontinuance audio sound during playback. Self-Guard can be programmed to go into sleep mode even when there is audio sound but without a motion, and this causes audio discontinuance during playback. If you want to record audio sound without disruption, then you should turn ON audio detection function from “Power Set”. For detailed information on this, refer to **4-9-3-7. AUDIO DET: OFF**

◆ Operating conditions

This Self-Guard is designed for use in temperatures ranging from -10℃ to +50℃ (14˚F to 122˚F).

Do not expose this product directly to intense sun-light or heat.

Do not expose to rain or extreme humidity or dirty environment.

Keep this product away from extreme vibration or any magnetic devices.

Only use the battery and adaptor provided by us.

Do not open the cover of this product. Otherwise, the warranty will be void.

Before using our product, read the user's guide carefully and become familiar with all the features and warnings associated with this product.

Do not touch this product with wet hands.

◆ Condensation

- When you bring the Self-Guard indoors on a cold day or otherwise expose it to a sudden change of temperatures, there is the possibility that condensation can form on the exterior or on interior components. Condensation can cause malfunction of the Self-Guard, so you should avoid exposing it to conditions that might cause condensation.
- To keep condensation from forming, place the Self-Guard into the Carry-Along Bag before moving it into a location that is much warmer or colder than your current location. Leave it in the plastic bag until the air inside the bag has a chance to reach the same temperature as the new location. If condensation does form, remove the battery from the Self-Guard for a few hours.

◆ Lens

- Never apply too much force when cleaning the surface of the lens. Doing so can scratch the lens surface.
- Dust or any other soiling of the lens can interfere with proper image recording. You can remove dust particles from the lens surface by using a lens blower to blow them off. Next, wipe the surface of the lens with a soft lens cloth.

◆ Others

- The Self-Guard may become slightly warm during use. This does not

indicate malfunction.

- If the exterior of the Self-Guard needs cleaning, wipe it with a soft cloth.

◆ NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

2. Features

Self-Guard is an extremely small digital recording system, which can digitally compress, store, search, and transmit/receive information such as, image and audio captured by the camera and microphone.

The Self-Guard defines all the existing technologies of the DVR/CCTV combination, as well as integrating other revolutionary security innovations: Remote Access and Bluetooth.

You can monitor any place from anywhere, because the Self-Guard transmits image and audio to remote areas using wireless transmit technology. By applying this technology, Self-Guard is the Ubiquitous security system.

You can connect to the Self-Guard by the internet with a computer, and view the live images of the Self-Guard. Also, you can copy the files saved in the Self-Guard to your local computer and playback.

Self-Guard is a user-friendly system, and a necessity in these days when security comes to our top priority.

- Unlimited Fields of Application
- Provides Total Solution for Security
- Easy Covert Operation using the Concealing Case, Button Camera etc.
- Built-In 1 (up to 2) CMOS Color Camera
- 2 Built-In Microphones and 1 speaker
- Built-In color LCD (1.8 Inch) for Immediate and Easy Search / Playback
- 4 Color Camera Input Ports
- 3 Sensor Input/Output Ports
- 1 Microphone Input Port
- 1 TV (Audio/Video) Output Port
- Intelligent Algorithm for Motion, Audio and Sensor Detection
- Remote Monitor, Copy, and Record via LAN
- Wireless Transmit and Receive of Digitalized Audio/Video Data- Bluetooth & WiFi (optional)
- Subminiature Size (Less than a Cigarette Pack)
- Durable Design against Impacts
- Programmable Settings for the Option in the Menu – You can configure different values for every option in the menu.
- Snapshot Mode

- Built-In (128MB) Flash Memory - Free of Data Loss, Images can be recorded without using a memory card
- Memory Card for Memory Expansion
- Extensive Recording Time and Data Back-up using External USB HDD or USB Memory Stick
- Long Battery Life (Low-power Consumption technology for long lasting recording and playback between charges.)
- File Conversion to .avi or .jpeg
- User-friendly Operation

3. Specifications and Comparison of each Model

3.1 Specifications

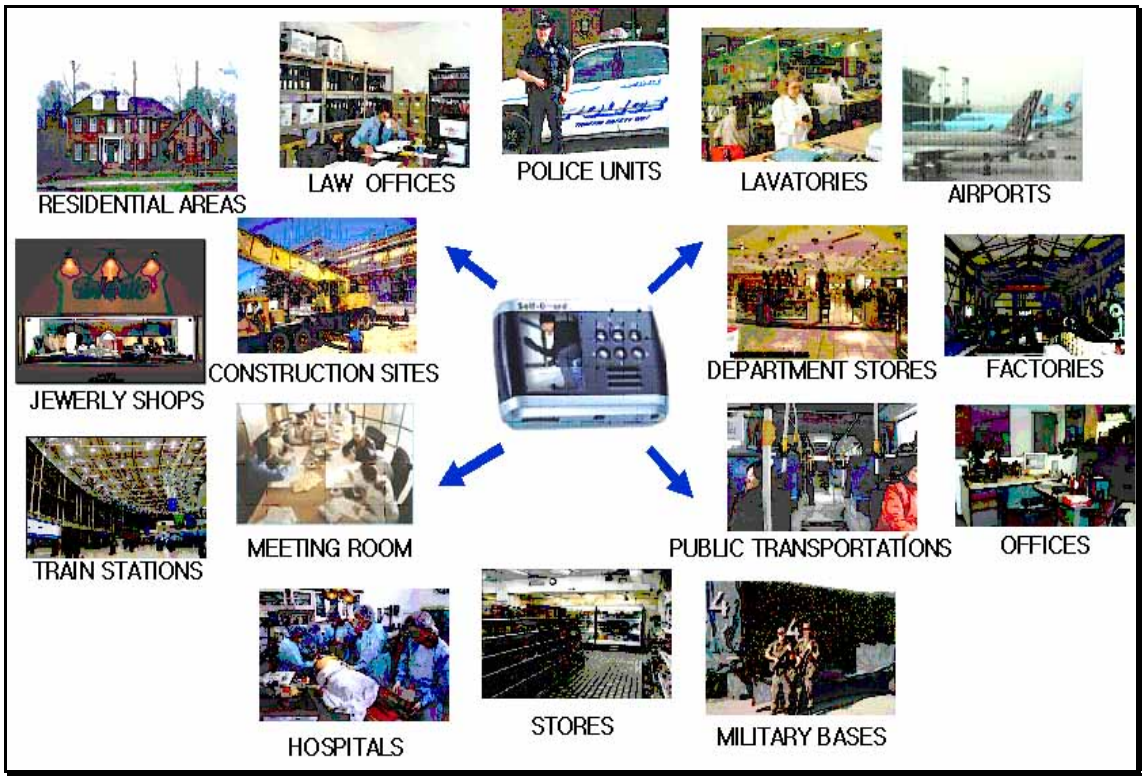
SECTION		DESCRIPTION	REMARKS
Memory	Built-In	128MB Flash memory	Up to 1GB
	External	Micro SD(up to 8GB) USB Memory Stick, USB HDD	
Camera	Built-In	1 CMOS Color (Up to 2EA) Angle(56 Degrees), Unlimited Focus	307,200 pixels
	External	NTSC/PAL	4EA
Light Sensitivity		1 Lux under@f1.2	Built-in camera
Resolution		Up to 640 x 480 pixels	NTSC/PAL
Display Speed		Up to 25 fps	NTSC/PAL
Recording Speed		Up to 12 fps @240 x 240 pixels	NTSC/PAL
Audio Input		2 Built-In Microphones and 1 Audio Input	Audio Detection
Audio Output		Built-in Speaker	
Sensor In/Out		3 Sensors In/Out	NO/NC
Display		Built-in LCD TV Output (NTSC/PAL) **only suitable for small screens	1.8" LCD
Search/Playback		Date/Time, Motion, Sensor	
Motion Detection		Digital Image Processing External Signal Input(PIR Sensor Etc.)	
Video Compression		Starnex's own algorithm optimized for security	similar to H.264
Recording Methods		Continuous/Motion & Audio Detection	
Storage Capacity		High Image Quality:1-2 days Medium: 2-5 days Low: 5-10 days	128MB @1fps 240x240 pixels (Indoor Use)
Battery Duration		Continuous Rec. Mode: 5.5 hours Power Save(motion detection):up to 24 hours Ultra Power Save (audio detection): up to 3 days	
Remote Access		LAN	
Wireless Communication		Bluetooth, Wi-Fi(Optional)	
Wireless Receiver		2.4 GHz wireless camera receiver	Up to 4 cameras
Source of Power		Built-in Li-Polymer Battery (3.7VDC, 1400mAh) & Adaptor (5V DC, 2A)	
Dimensions: 85(W) × 55(H) ×22(D) mm Weight (Including Battery): 116g (2.5 lbs.) 3.3(W) × 2.2(H) × 0.9(D) inch Humidity: Under 80% Operating Temperature: -10 °C to + 50 °C (14°F to 122 °F)			

3.2 Comparison of each Model

Functions	SG-1000	SG-2000	SG-3000
Video Recording	O	O	O
Audio Recording	-	O	O
Bluetooth	-	-	O
Wi-Fi (optional)	O	O	O
Sensor Input/Output	O	O	O
Network Access	O	O	O
TV Output	O	O	O
Audio Input	-	O	O
Video Input	O	O	O
Snapshot	O	O	O
Motion Detection	O	O	O
Audio Detection	O	O	O
USB	O	O	O
Docking Station	O	O	O

4. Applications

- House, Apartment (Residential Areas), Hotel, School/University Facility, Daycare Center, Kindergarten
- Laboratory, Hospital, Law Office, Museum, Church, Public Library, Commercial Buildings
- Banks, Jewelry Shop, Restaurants, Department Stores, Liquor Stores, Convenience Stores, Book Store, Gas Station
- Factories, Construction Site, Farm, Powerhouse, Parks, Amusement Park, Public Facility
- Fire Department (Fire Fighters), Security Guards, Police Units (Police Officers), Mailman, Jailor
- Military Base (Soldier), Anti-Terror, Special Agents, Airports, Bus Terminal
- Taxi, School Bus, Car, Traffic Signs/Signals, Airplane, Parking Lot, Cash Transporting Truck, Subway
- Courts, Executive Office, Conference Rooms, Governmental Offices, Cultural Property Controlling Office



QUICK START GUIDE

1. Charging the Battery

- Load the battery into the Self-Guard.
- Plug the AC/DC adaptor directly into the power input port of Self-Guard.

Or, place Self-Guard unit onto the Docking Station to charge the battery.

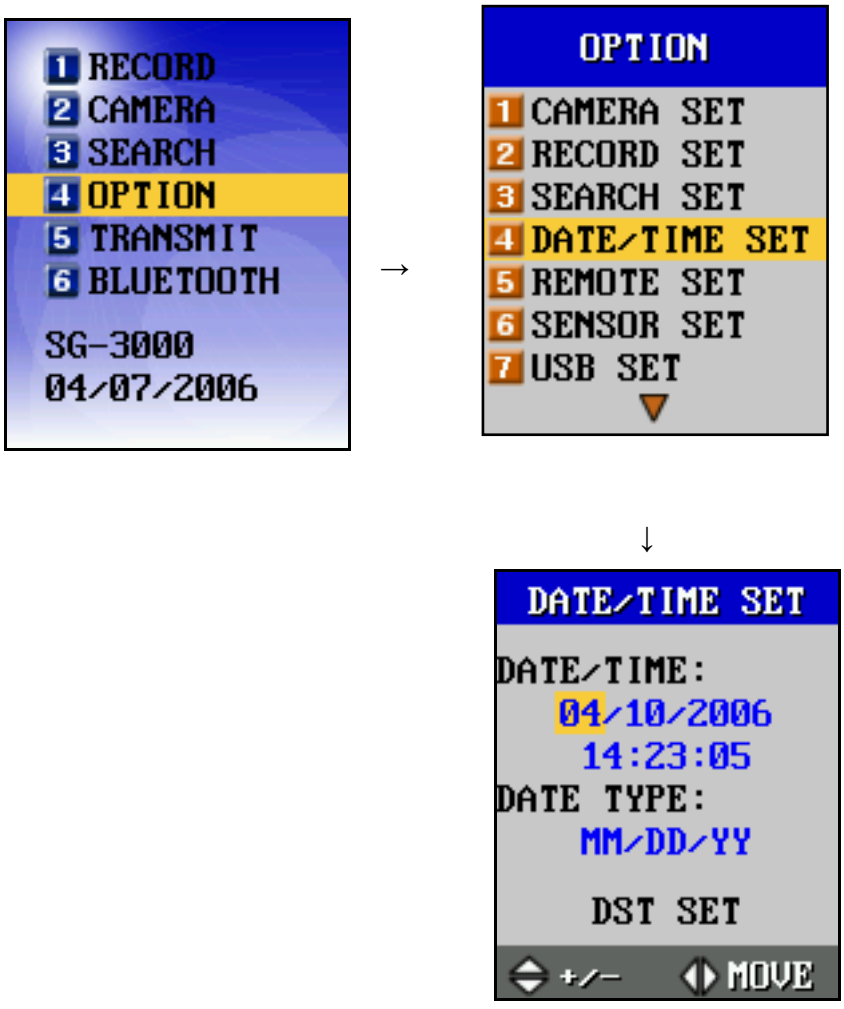
- Total recharging time is 3 hours for a full recharge.

2. Turning the Self-Guard On and Off

- Push [ENT] for 2 seconds to turn on the power.
- Push [ESC] for 2 seconds and release it to turn off the power.

3. To Configure Clock Setting

Be sure to configure the following setting before using Self-Guard.



1. Press [ENT] for 2 seconds to turn on Self-Guard.
2. Use [△] and [▽] to select “4. OPTION” and press [ENT].
3. Use [△] and [▽] to select “4.DATE/TIME SET” and press [ENT].
4. Use [◁] and [▷] to move the cursor to month, date, year, and time.
5. Use [△] and [▽] to change the values for each set.
6. Use [◁] and [▷] to move the cursor to “DATE TYPE”.
7. Use [△] and [▽] to select one from 3 types. (DD/MM/YY, MM/DD/YY, YY/MM/DD)
8. Press [ENT] to register the settings and exit the setting menu.
   (There are 3 ways to arrange the “DATE TYPE” setting, and it varies in different geographic areas. The types will be changed in a regular sequence of (DD/MM/YY → MM/DD/YY (YY/MM/DD) as you press [△] and [▽].

3-1. DST SET

First, set DST function to on, and use [◁] and [▷] to move the cursor to the Date, Month, and Hour and use [△] and [▽] to change those variables.

4. To record a moving image

Use [△] and [▽] to select RECORD, and then press [ENT]. Then, it will appear with the sight that's being recorded as below and the Self-Guard starts to record images.

- Before you start to record, be sure to check from the LCD that the camera can capture the sight where you want it to be recorded.
- Press [ESC] to stop recording and exit from the "RECORD" mode.
- If you are recording with more than one camera, you can choose either a single-channel mode or a 4 channel mode by pressing [▽] button.

- REC AV: Indication of recording both A (Audio) and V (Video).
  Shows "REC V" when recording the video only.
- C1: Camera channel number 1 being used for recording.
  If it shows C1345, then 'C' indicates of camera and 1345 indicates

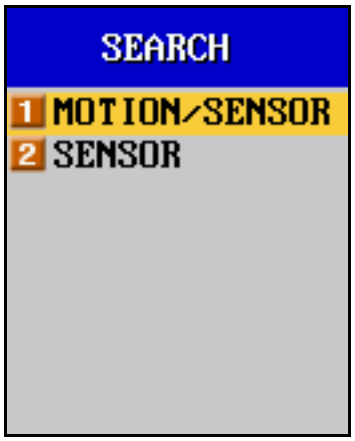
for camera channel numbers.

If it shows C1B123, then ‘C1’ indicates of camera number 1 and ‘B123’ indicates of Bluetooth channel 1, 2 and 3.

- 13:40:34: current time.
- (10): elapsed recording time (10 minutes).
- 39%: 39 percent of the total memory(Built-in, MICRO SD, USB) is being used for recording.

5. <u>To Playback a Moving image</u>

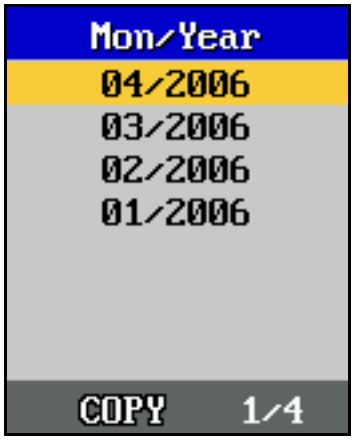
Use [△] and [▽] to select “SEARCH”, and press [ENT]. Then the next screen appears as below.



You can search the data either by 1.MOTION/SENSOR or 2.SENSOR.

1.MOTION/SENSOR- includes data saved by both motion and sensor detection
2.SENSOR- includes data saved by sensor detection only.

Use [△] and [▽] to select “1.MOTION/SENSOR”, and then press [ENT]. Then the next screen appears as below.

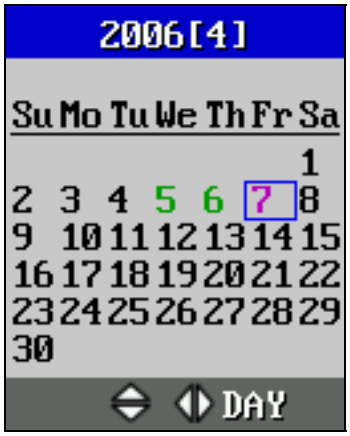


The list of the month and the year, which has recorded data shows on the screen. All saved data are arranged by the month and the year in a list. If there is no data saved on a month, then that specific month will not be included on the list.

COPY: To copy all the data of the selected month to the selected memory device.
(If USB or MICRO SD memory device is not connected to the Self-guard, then the cursor does not move to COPY.)

1/4: First of four pages of the list

Select a Mon/Year, which includes the file you want to playback, and then press [ENT].



- Green Colored Date: There exists saved data.
- Black Colored Date: There exists no saved data.
- Pink Colored Date: Cursor position

Use [◁] and [▷] to select the date you want, and then press [ENT]. Then the list of saved data appears on the screen as below.

To move the cursor to the options at the bottom, use **[▷]** and **[◁].**

PREV	Go to the previous page
1/3	First of 3 pages
NEXT	Go to the next page
LOCK	Lock from deleting file
DEL	Delete selected file
DELALL	Delete all files for the selected date (except for '*.sgvx' file)

COPY	Copy a selected file to the selected memory
COPYALL	Copy all file of the selected date to the selected memory

There are three colors (blue, red, or green) for each file to indicate which memory is used to save the file. The indications are as follow.

Color of file name	**Meaning**
Blue colored file	File is stored in built-in memory.
Red colored file	File is stored in the memory card.
Green colored file	File is stored in USB memory devices.

The name of the file is composed of hours, minutes, seconds and the camera's channel numbers. For example, '15373501.sgv' means that the file has started recording at 3: 37: 35 P.M. with camera 1. For 15224201.sgv**x**, **'x'** means the file is locked to protect from deleting. To lock or unlock the file, select "LOCK" and press [ENT]. The locked files are not to be deleted before you unlock it. However, locked files can be deleted if you do the format ("4.OPTION" mode → "8.MEMORY SET" → "3. FORMAT"). **'*.sgv'** indicates that it is a file of a moving image. **'*.sgvx'** indicates that it is a locked moving images and **'*.sgp'** is a snapshot image.
After selecting the file that you want to view, press [ENT].

Please refer to the General Guide for more details about viewing a moving image.

6. BLUETOOTH (SG-3000 Only)

First, choose one Self-Guard as a SLAVE (to send the images) and the other unit as a MASTER (to receive the images).

Steps to set the Self-Guard as a SLAVE:
1. For the fastest transmission of the data, set the recording resolution to 128x128.
2. Set "6. BLUETOOTH" -> "2. M/S: **SLAVE**"
3. Check "3. MY ID" and write down the ID.
4. Select "1. RECORD"

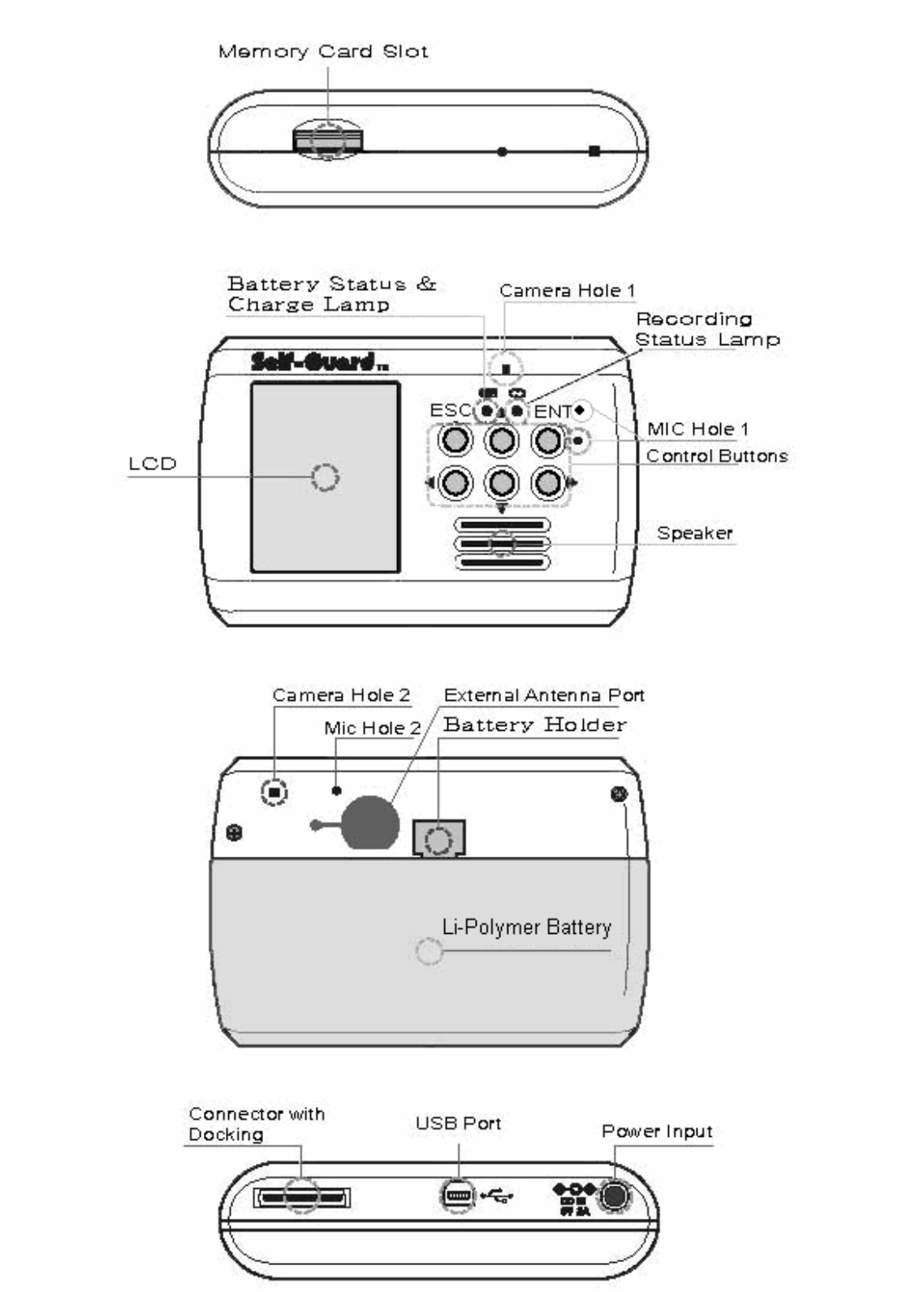
Steps to set the Self-Guard as a MASTER:
1. Set "6. BLUETOOTH" -> "2. M/S: **MASTER**"

2. Select “1. CONNECT SET”
3. Select “1. BT1/CH#1/OFF”
4. “1.CONNECT: **ON**”
5. “4.00:02:78:0C:60:FF” ->change this ID to the SLAVE’s, which you have written down for your record in step #3 in the "SLAVE"
6. Select “1. RECORD”

Please refer to the General Guide for more details about BLUETOOTH.

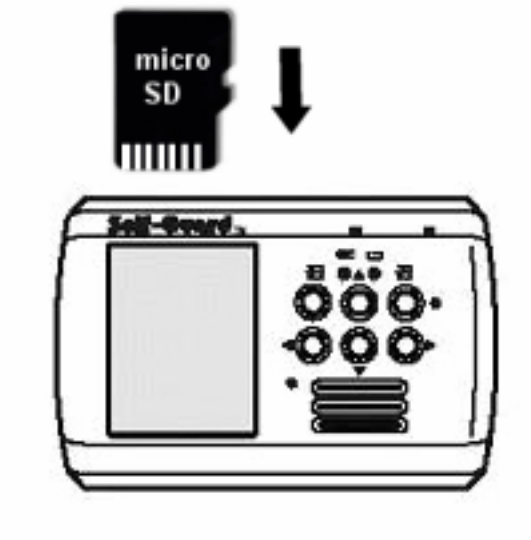
GETTING READY

1. Self-Guard



Memory Card Slot: This is the place where you put in the standard MICRO SD memory card. If you need to expand the memory from the built-in, internal memory, you can get this from where you have purchased the Self-Guard. This product provides a memory card, which lacks in memory.

Cautions: Do not insert or remove the memory card from the slot while recording or searching. If you want to remove the memory card from the slot, then you must exit from “RECORD” or “SEARCH” mode first, before removing the memory card from the slot. Push the MICRO SD Card to remove it from the slot.



Insertion of Micro SD Memory Card

Camera Hole 1 (Built-In): Self-Guard has one built-in CMOS camera on the front side of the Self-Guard. Be sure that this camera hole is not blocked to prevent from the Self-Guard unable to record the images.

Camera Hole 2 (Optional): Self-Guard can be installed with another CMOS camera on the rear side to record images from the back of the Self-Guard.

Mic Hole 1 (Built-In): This is where a highly efficient microphone is installed on the front side of the Self-Guard. Be sure that this hole is not blocked in order to record the audio.

Mic Hole 2 (Built-In): Self-Guard has second built-in microphone on the rear side. Be

sure that this hole is not blocked in order to record the audio.

Battery Status & Charge Lamp: This lamp indicates how much of the battery is left. Lamp with the green color indicates that the battery is full. The color of this lamp changes into yellow when the battery is half full, and the red color means that the battery is almost used up. If you connect the AC adaptor to the Self-Guard when the battery is not full, then it automatically charges up the battery to its fullest. While charging the battery, the lamp blinks with the green light. After charging is completed, the lamp stops blinking and you will see the green light indicating that the battery is full.

Recording Status Lamp: This lamp is to check on the recording status. When the Self-Guard is not in the "RECORD" or "TRANSMIT" mode, the color is green and the color changes into red when the Self-Guard goes into recording or server mode. In the "RECORD" or "TRANSMIT" mode, the color is still red if there is no motion detected by the Self-Guard. But when the Self-Guard detects a motion, then the color turns into yellow, and turns back to red. So if the Self-Guard continues to detect motions, then the color alternates between red and yellow. If you turn on the audio detection function (4.OPTION → 9.OTHERS → 3.POWER SET → 7.AUDIO DET), and audio is detected, then this lamp blinks with red color.

Control Buttons

ESC: This button is to go to the previous menu from the current menu, or is to cancel the selected values.

ENT: This button is to go to the selected menu or to apply the changed values.

△**:** This button is used to move up in the menu or to enter into the image magnification mode in "(1.CAMERA, 2.RECORD), SEARCH", or to select certain values from the "OPTION" mode.

▽**:** This button is used to move down in the menu, or to enter into 4 channel mode, or to select certain values from the "OPTION" mode.

◁**:** In the menu, this button is used to move to the left or to select certain values.

▷**:** In the menu, this button is used to move to the right or to select certain values.

External Antenna Port: This port is to connect external antenna for Bluetooth. You can transmit data about 80 – 100 meters using the built-in antenna. If you use the high gain

external antenna (SG-942), you can increase the transmit range up to 300 meters. And the distance depends on the kind of antenna gain.

Battery Holder: When you load the battery into the Self-Guard, this place keeps a hold of the battery to the Self-Guard's body. In order to settle the battery in the Self-Guard, you need to place the battery onto the back of the Self-Guard's body, and push the battery to the upper direction. If you want to detach the battery from the body, then press this holder with your thumb, and pull it in downward direction.

Li-Polymer Battery: Rechargeable battery with 3.7 volts and 1400mAh.

Connector with Docking: This is the port where you connect the Self-Guard with the docking station. Through this port, you can link the connectors in the docking station with the functions in the Self-Guard. All the functions are included in the Self-Guard's body, and the docking station has only the connectors for the external cameras, microphone, external monitor, sensors, power, USB, and the connector for LAN.

USB Port: You use this USB port when you want to save data for a long period of time or need to back up saved data in the Self-Guard to the USB memory such as, USB memory stick or USB hard disk. This port has the USB mastering function, so if you connect either a USB memory stick or a USB hard disk into the Self-Guard, then it automatically detects that and enables you to use those USB memories (USB memory stick and USB hard disk) as a memory expansion or a back up memory.

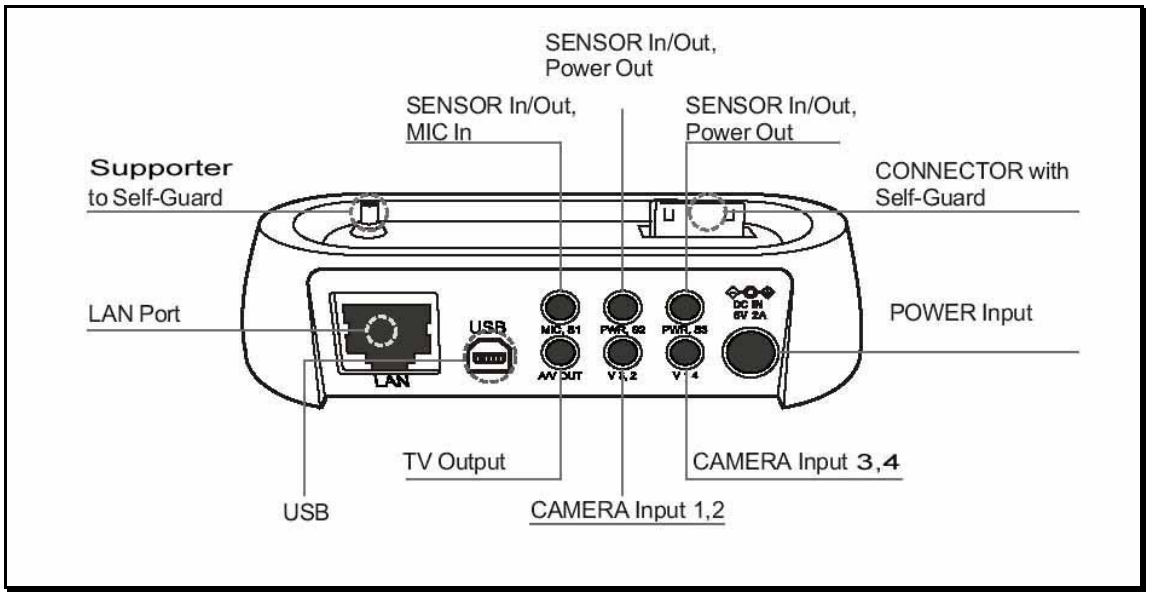
Cautions: Do not insert or remove USB memory devices from the USB port in the Self-Guard while recording or searching. When you remove the USB memory device from the Self-Guard, you must exit from "RECORD" or "SEARCH" mode, and select "REMOVE USB" from main menu and press [ENT] button. After "REMOVE USB NOW" message appears on the LCD, you can remove the USB memory device from the Self-Guard.

When you back up the Self-Guard's data to your computer, first, copy the data in the Self-Guard to a USB memory device, and then insert that USB memory device to the USB port in the computer to copy the data in USB memory device to the computer. Use only the USB cable provided in the package. It may cause damage to both the Self-

Guard and the computer if you connect the Self-Guard to the computer using other USB cables directly.

Power Input: connector for the AC adaptor (DC 5V, 2A).

2. Docking Station



LAN Port: This is the port for the LAN, where you can connect to the Self-Guard with your computer in remote places.

USB Port: This is the same USB port as in the Self-Guard's body.

MIC, S1: MIC is where you put in the external microphone. **S1** is the port number 1 for the sensor input and output. Provided sensor cable has three wires. The red colored wire is for S1, white colored wire is for MIC, and the striped wire is for the GND (Ground).

PWR, S2: PWR is where you get the power (below 300mA) from the battery (3.6 V – 4.2 V) of the Self-Guard or from the adaptor (5 V). If the adaptor is connected to the Self- Guard, then it gets the power from the adaptor and the voltage is 5. If there is no adaptor connected to the Self-Guard, then it uses the power from the battery and the voltage is from 3.6 to 4.2. **S2** means that it is the port number 2 for the sensor input

and output. Provided sensor cable has three wires. The red colored wire is for S2, white colored wire is for PWR, and the striped wire is for the GND (Ground).

PWR, S3: PWR is where you get the power (below 300mA) from the battery (3.6 V – 4.2 V) of the Self-Guard or from the adaptor (5 V). If the adaptor is connected to the Self- Guard, then it gets the power from the adaptor and the voltage is 5. If there is no adaptor connected to the Self-Guard, then it uses the power from the battery and the voltage is from 3.6 to 4.2. **S3** means that it is the port number 3 for the sensor input and output. Provided sensor cable has three wires. The red colored wire is for S3, white colored wire is for PWR, and the striped wire is for the GND (Ground).

A/V OUT: This port is for the audio and video output. You can connect a TV or an external monitor to the Self-Guard through this port, and you can see larger images than you could from the internal LCD by enlarging the images. Provided TV output cable has two wires. The yellow colored wire is for the video output, and the red colored wire is for the audio output.

V1, 2: This port is for the video inputs. You can connect external cameras through this port. Provided video input cable has two wires. The red colored wire is for the video input 1, and the yellow colored wire is for the video input 2.

V3, 4: This port is for the video inputs. You can connect external cameras to the Self-Guard through this port. Provided video input cable has two wires. The Yellow colored wire is for the video input 3, and the red colored wire is for the video input 4.

Power Input: It is the same as the power input in the Self-Guard's body

Supporter: This supporter upholds the Self-Guard when you set it up on it.

Connector with Self-Guard: This is the connector in the Docking Station to connect with the Self-Guard.

Caution: It may cause problems to this product if you insert video input and TV output cable into the sensor In/Out ports.

GENERAL GUIDE

Power ON/OFF

Push [ENT] for 2 seconds to turn on the power.
To turn off the power, push [ESC] for 2 seconds and release it.

Main Menu

When you turn on the power of the Self-Guard, then a screen appears as below.

I. FUNCTIONS

1. RECORD

Select “RECORD” with the direction buttons and then press [ENT]. Then it shows the screen that’s being recorded as below, and the Self-Guard starts to record images. When the Self-Guard goes into the “RECORD” mode, then the color of recording status LAMP changes into red from green. When the Self-Guard detects a motion, then the color turns into yellow. So if the Self-Guard continues to detect motions, the color alternates between red and yellow.

This function saves images from the cameras, sounds from the microphones and data from the sensors. Before you start to record, be sure to check from the LCD that the camera can capture where you would like to record. In “RECORD” mode, even under the situation of the battery and adaptor power outage, if the power from either of the two gets available to the Self-Guard, then the Self-Guard automatically turns on its power, and returns to the “RECORD” mode. This function is very useful for the users who are in remote places from their Self-Guard, and not able to control it immediately when they need to.

- REC AV: Indication of recording both A (Audio) and V (Video).
  Shows “REC V” when recording the video only.
- C1: Camera channel number 1 being used for recording.
  If it shows C1345, then ‘C’ indicates of camera and 1345 indicates for camera channel numbers.
  If it shows C1B123, then ‘C1’ indicates of camera number 1 and ‘B123’ indicates of Bluetooth channel 1, 2 and 3.
- 13:40:34: current time.
- (10): elapsed recording time (10 minutes).

- 39%: 39 percent of the total memory(Built-in, MICRO SD, USB) is being used for recording.

Press [▽] to view the images in single mode, or in 4 channel mode. Press [ESC] to stop recording and exit from the “RECORD” mode.

You can access the image and audio of the Self-Guard, or copy off the Self-Guard’s data by the network from a remote computer. In addition, you can access images and audio of the Self-Guard or copy off the data in the Self-Guards by the wireless communication method (Bluetooth) from a remote Self-Guard (SG-3000 only).
When you connect to the Self-Guard by the network, you need to know the ID and the Password. And when you connect to the Self-Guard wirelessly, then you need to know the Self-Guard’s Bluetooth ID.

2. CAMERA

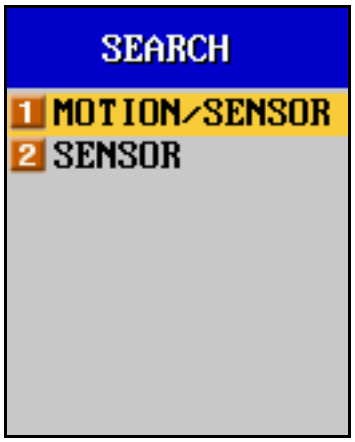
Select “CAMERA” using the direction buttons and then press [ENT]. Then the next screen appears in the LCD as below.

You can check on the camera's recording location, and the operating status of it with the Self-Guard's LCD. When using multiple cameras, you can see up to 4 images simultaneously from the LCD. Every time you press [▽] in "2.CAMERA" mode, the image from each channel, which is turned on, appears in order. After the last channel shows up on the screen, it changes into 4 channel mode automatically, and displays four images from different cameras at once.

You can take a snapshot like with a digital camera by pressing [ENT] in this mode. The file name is '*.sgp'. You can check on the snapshot file from "SEARCH" mode. In "SEARCH" mode, after stopped from playing, you can go to magnification mode by pressing [△] and then you can get a larger snapshot image by pressing [ENT]. The image is magnified by 4 times (width x 2 and length x 2) for the 240x240 or the 320x240 pixels of resolutions. And if the resolutions are 480x480 or 640x480 pixels, then they are magnified by 16 times (width x 4 and length x 4). You cannot magnify the images in the 128x128 or 160x128 pixels of resolutions. In magnified state for the images, you can use the direction buttons to move to certain portion in the screen. Press [ESC] to escape from the magnification mode. You can use this magnification mode in the case that "1.MON OUT" ("4. OPTION" mode → "9.OHERS" → "2.EXT MON SET") is set to OFF.

3. SEARCH

Use [△] and [▽] to select “SEARCH”, and then press [ENT]. Then the next screen appears as below.

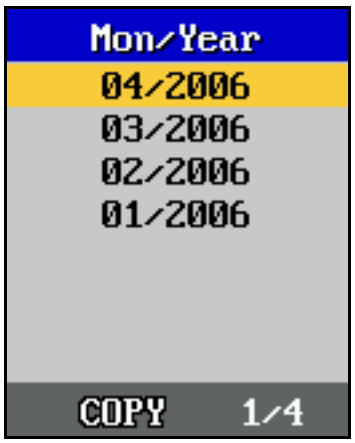


This function lets you search the data saved by the motion detection of the image and by the sensor detection, or you can search the data saved by the sensor detection only.

1.MOTION/SENSOR- includes data saved by both motion and sensor detection
2.SENSOR- includes data saved only by sensor detection

3-1.MOTION/SENSOR

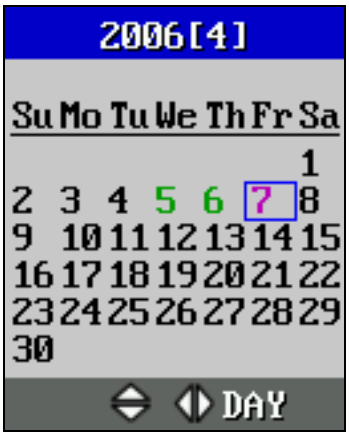
Use [△] and [▽] to select “1.MOTION/SENSOR”, and then press [ENT]. Then the next screen appears as below.



All saved data are arranged according to the month and the year.
The month and the year show on the screen if there exists data saved for that month

Mon/Year: Indication of the data for each month and the year
04/2006: Data exists for the month of April of 2006
03/2006: Data exists for the month of March of 2006
02/2006: Data exists for the month of February of 2006
COPY: Copy all the data for the selected month to the selected memory
(If USB or MICRO SD memory device is not connected to the Self-guard, then the cursor does not move to COPY.)
1/4: First of four pages of the list

By using the direction buttons, select the month and the year that you want to search with, and press [ENT]. Then the next screen appears as below.



- Green Colored Date: There exists saved data.
- Black Colored Date: There exists no saved data.
- Pink Colored Date: Cursor position

Use [◁] and [▷] to select the date you want, and then press [ENT]. Then the list of saved files appears on the screen as below.

To move the cursor to the options at the bottom, use **[▷]** and **[◁].**

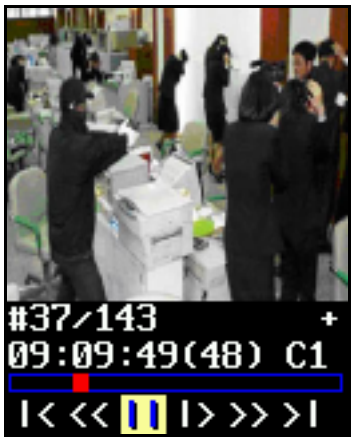
PREV	Go to the previous page
1/3	First of 3 pages
NEXT	Go to the next page
LOCK	Lock from deleting file
DEL	Delete selected file
DELALL	Delete all file of the selected date (except for '*.sgvx' file)
COPY	Copy selected file to the selected memory
COPYALL	Copy all file of the selected date to the selected memory

There are three different colors (blue, red, green) for each file name to indicate which memory device is used to save the files. The indications are as follow.

Color of File Name	**Meaning**
Blue colored file name	File is stored in built-in memory.
Red colored file name	File is stored in the memory card.
Green colored file name	File is stored in USB memory devices.

The name of the file is composed of hours, minutes, seconds and the camera's channel numbers. For example, '15373501.sgv' means that the file has started recording at 3: 37: 35 P.M. with camera 1. For 15224201.sgv**x**, **'x'** means the file is locked to protect from deleting. To lock or unlock the file, select "LOCK" and press [ENT]. The locked files are not to be deleted before you unlock it. However, locked files can be deleted if you do the format ("4.OPTION" mode → "8.MEMORY SET" → "3.FORMAT").

'*.sgv' indicates that it is a file with moving images. **'*.sgvx'** indicates that it is locked moving images, and **'*.sgp'** is the snapshot images.
After selecting the file that you want to search, press [ENT]. Then the next screen appears as below.



#37: Current frame number being played
143: Number of total frames
+ : It alternated between + and – while playing the audio
09:09:49 : Current playback time from the recorded file
(48) : Total recorded time (48 minutes)
C1 : Camera number being played
■: Current playing time position in total recorded time frame
|<: Go to the Start of the file
>|: Go to the End of the file
<<: Move backward by 30 frames
>>: Move forward by 30 frames
|>: Move forward by 1 frame

||, ->, => : Stop, Play, High-Speed Play; If you press the [ENT], then the status bar changes to "-> (Play)" from the stopped status. If you press the [ENT], then the status bar changes to "=> (High-Speed Play)" from the Play status. If you press the [ENT], then the status bar changes to "-> (Play)" from the High-speed Play status. If you want to stop from Playing or High-Speed Playing, then press [ESC].

New files are created every hour on the hour. But if the file size exceeds 10 Mega bytes, then it automatically makes a new file even if the time is yet to be on the hour. If there is no motion at all, then there will be no file created. While playing the files, you can control the volume of the speaker by pressing [◁] to make it quieter or [▷] to make it louder. Press [ESC] to escape from playing the files. Press [ESC] again to go to the previous menu.

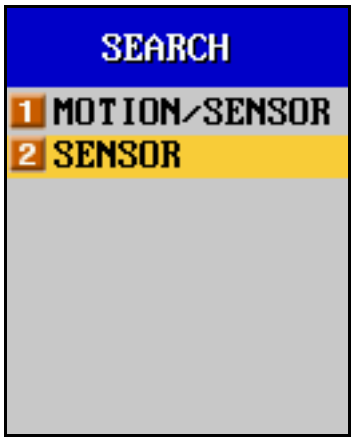
If you have recorded something with multiple cameras simultaneously, then the screen displays in 4-channel mode as you go into the playback mode. For example, if 6 cameras have been recorded at the same time, the screen displays in 4-channel mode, and plays for all 4 images saved from camera 1 to camera 4 In order to see the rest of the cameras' channel (camera 5 and camera 6), press [▽]. Press [▽] again, to switch into single channel mode, and the image saved from camera 1 will only show in a larger screen. Repeat pressing [▽] to see the rest of the camera channels one by one. After showing the last camera's data (camera 6) in a single channel mode, it switches into 4-channel mode, and plays 4 camera channels simultaneously again as you press [▽].

While playing the data, use [△] to magnify the image. But, if "1.MON OUT" ("OPTION" mode → "8.OTHERS" → "2.EXT MON SET") is set to ON because you want to search the data using an external monitor, then [△] is used to toggle the OSD (On Screen Display), not to magnify the images.
If you stop playing the data and press [△], then the LCD screen is divided into several blocks for you select the area that you want to magnify ("1.MON OUT" should be turned Off). When you select the block that you want to magnify and press [ENT], then it goes into the magnification mode centering the block that you have chosen.

The resolution of the current data appears on the lower left side of the magnified screen, and the magnification ratio appears on the lower right side of the LCD screen.
In the magnification mode, you can move to the left, right, up, and down direction by using the direction buttons, and press [ENT] to change the magnification ratios, and the ratios repeat x 1 → x 4 →x 16 as you press [ENT] continuously.

In 480x480 and 640x480 pixels of resolutions, it is possible to magnify the images up to 16 times (width x 4 and length x 4), and the magnifying order is x 1→ x 4 → x 16. But, in 240x240 and 320x240 resolutions, you can magnify the images by 4 times only (width x 2 and length x 2), and the magnifying order is x 1 → x 4. You cannot magnify the images in 128x128 and 160x128 resolutions. To escape from the magnification mode, press [ESC].

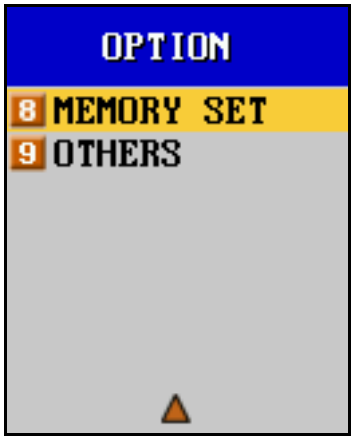
3-2. SENSOR



Using the direction buttons, select “2.SENSOR”, and press [ENT]. Then, you can search the data saved by the sensor detection only. The searching method is the same with “1.MOTION/SENSOR”. But the only difference is that in “1.MOTION/SENSOR”, you can search the data created both by the motion detection of the image and sensor detection, whereas in “2.SENSOR”, you can search the data created by the sensor detection only. When you want to search the data saved only by the sensor detection, then this function is useful for the faster search than you can with “1.MOTION/ SENSOR”.

4. OPTION

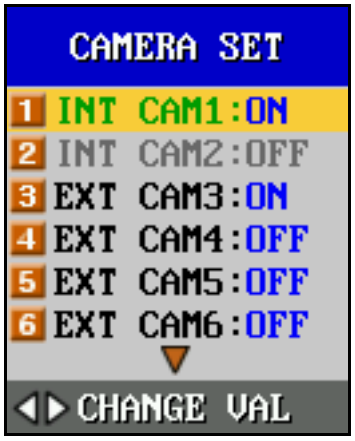
Select “OPTION” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below.



Use [△] and [▽] to select an option and press [ENT]. Then the window displays with next options related to the previous option menu for you to change the values. To change the values, use [▷] and [◁].

4-1. CAMERA SET

Select “1.CAMERA SET” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below. In order to return to the previous menu, press [ESC].



Self-Guard has one built-in camera in the front, and can add one more internal camera in the back of the unit. You can connect up to four more external cameras to your Self-Guard through the docking station. And you can connect a button-hole camera with microphone (SG-911) to your Self-Guard. You can turn on and off each camera. If there is only one built-in camera and no external camera is connected to the Self-Guard, then you cannot turn off the built-in camera. There should be at least one camera connected besides the built-in camera to the Self-Guard if you want to turn off the built-in camera.

Regardless of whether the cameras are turned on or off in the menu, if the cameras are connected to the Self-Guard, then those specific camera numbers in the menu shows with green color.

Be sure to turn off the cameras that are not connected to the Self-Guard in the menu.

Read below instructions for the “BUTTON CAM” function if you have purchased a SG-911-“Button Camera with Microphone”

<How to connect Button Camera to the Self-Guard>
1. Insert the Button Camera into the Self-Guard’s connector which is located on bottom of the Self-Guard unit.
2. Turn on the “BUTTON CAM” function.

<How to remove Button Camera from the Self-Guard>
1. Turn off the “BUTTON CAM” function.
2. Remove Button Camera from the Self-Guard unit.

<More details on how to use Button Camera>
To use the button camera, be sure to connect the button camera to the Self-Guard unit first, and then turn on the function for, “BUTTON CAM”. If “BUTTON CAM” function is turned ON from the unit, you can go into the Record or Sleep modes using the remote On/Off switch of the button camera. If you turn on the switch, then Self-Guard goes into Recording mode, and Self-Guard stops to record and goes into Sleep mode if you turn off the switch.

When you connect the button camera to the Self-Guard unit first and then turn On “BUTTON CAM” function, then Self-Guard may go into either a Recording mode if the remote On/Off switch is turned On, or a Sleep mode if the switch is turned Off, right after you turn on “BUTTON CAM” function depending on the switch’s physical location.

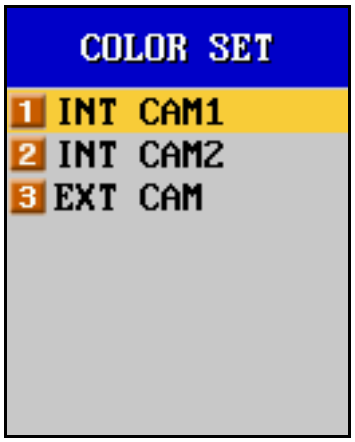
Note that you are turning off the built-in microphone and all the cameras set “ON”, but instead you are turning on the button camera and the microphone in it when you turn On “BUTTON CAM” function. When you are not using the button camera, press ESC button to go into the main menu. From this main menu, proceed into Camera Set and turn Off “BUTTON CAM” function before you remove the button camera from the Self-Guard unit. If you do not turn off “BUTTON CAM” function and remove the button

camera from the unit, then the Self-Guard may go into the Record or Sleep mode. When this happens, press ESC button to go into main menu. If you turn off “BUTTON CAM” function, then it will turn off button camera and its microphone, and restore the settings before the use of “BUTTON CAM” function for camera(s) and built-in microphone.

The types of external cameras can be set either in “NTSC” or “PAL”.

Select “8.COLOR SET” to change the brightness(“BRIGHTNESS”), hue(“HUE”), saturation(“SATURATION”), and contrast(“CONTRAST”) of the cameras connected.

Press “8.COLOR SET” and press [ENT], then the next screen appears in the menu as below.



If the built-in camera in the front side of the unit is turned on, then “1.INT CAM1” appears on the menu screen. If the built-in camera on the back of the unit is turned on, then “2.INT CAM2” appears on the menu screen. When both of the built-in cameras are turned on, then “1.INT CAM1” and “2.INT CAM2 both appears on the menu. Also, when at least one of the external cameras is turned on, then the “3.EXT CAM” appears on the menu screen. For the built-in cameras, you can only change the brightness (“BRIGHT”) of it, and for the external cameras, you can change all the values for “BRIGHTNESS”, “HUE”, “SATURATION”, and “CONTRAST”. Changing a value for each one of those 4 options in the color set will apply to all the external cameras connected to the unit. Using [△] and [▽], select one among the brightness, hue,

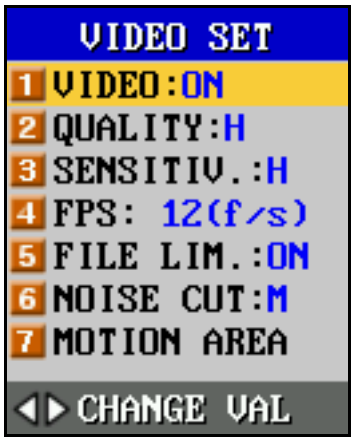
saturation, and contrast, and then use [◁] and [▷] to change the value ranging from 1 to 20.

4-2. RECORD SET

Select “2.RECORD SET” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below.

4-2-1. VIDEO SET

Select “1.VIDEO SET” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below.



4-2-1-1. VIDEO

This function turns on and off recording moving images.

Set it to off to record audio only (SG-2000, SG-3000 only).

4-2-1-2. QUALITY (Image Quality)

There are five image quality levels (LL, L, M, H, and HH). If you set this level to “HH”, then you get more clear images than in other levels, but a larger file size will result. On the other hand, if you set the level to “LL”, then it requires smaller file sizes, but you get less clear images compared to the images in “HH”. For example, if you set the level to “LL”, then the Self-Guard continues to record for 4 days. But, if you set the level to “HH” for more clear images, then recording time can last about 2 days. This recording time depends on different recording situations.

4-2-1-3. SENSITIV. (Motion Sensitivity)

This function is to control the sensitivity levels for the motion detection. There are five sensitivity levels (LL, L, M, H, and HH), and you can decrease or increase this level by pressing [◁] or [▷]. If you set this sensitivity level to “LL” and start to record, then the sensor detects only the large objects’ movements, and the file size gets smaller. In contrast, if the sensitivity level is in “HH”, then the sensor can detect even the very small motions, but the file size gets bigger. The reason for controlling this sensitivity level is that you may not want to record small motions that are unnecessary to you. Suppose that you are in an office and placed a Self-Guard to monitor the people coming in and out of the office, but with the “HH” sensitivity level, Self-Guard records unnecessary small motions of the people in the office, such as, moving their hands. In this situation, Self-Guard records too much of data and the file size gets bigger for all

those small motions recorded, and it will take much more time for you to search the data that you want. In addition, the available memory left for later decreases as the file size gets bigger, and the battery fades quickly.

4-2-1-4. FPS (Recording frames per second)

Recording frames per second (FPS) depends on the different values for the Image Resolution.

Image Resolution	Recording Speed (FPS)
128 x 128	1 - 15
160 x 128	1 - 15
240 x 240	1 - 12
320 x 240	1 - 10
480 x 480	1 - 5
640 x 480	1 - 4

4-2-1-5. FILE LIM

This is to turn on and off the function to limit file sizes being recorded. If this function is turned ON, then a file gets created for every hour or 10MB of file size while recording images. If you turn off this function, then you get just one file regardless of the file size or time elapsed. You are automatically deactivating OVERWRITE function when this function is turned OFF.

4-2-1-6. NOISE CUT

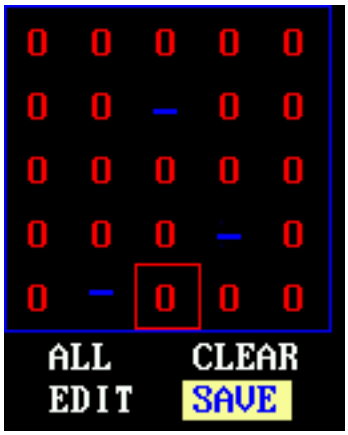
In the dark place, there happens many noise of image from the camera. The motion detection algorithm recognizes that noise as a motion and records the noise even if there was no actual motion. Self-Guard can cut this noise using the highly-efficient noise cancellation algorithm. There are five noise cutting levels (LL, L, M, H, HH). If you set this level to “LL”, then the Self-Guard cuts the low-level noise only. And if you set this level to “HH”, then the Self-Guard cuts so far as the high-level noise.

Most of the noise can be cut by setting this level to “M”, but sometimes, there could be high-level noise depending on the kinds of cameras. In that case, you can set this level to “H” or “HH” to cut the noise.

At dawn, the light becomes bright from dark, generating a lot of noise when the Self-Guard is in such circumstance. And the Self-Guard may recognize those noises as a motion. In this case, you can set this level to “H” or “HH” to cut the noise.
However, if you set the level to “H” or “HH”, then the motion detection algorithm of the Self-Guard may recognize the actual small motions as noise, and does not record those small motions. So, set the level to “M” except for the special cases.

4-2-1-7. MOTION AREA (Motion Detection)

Out of the whole recording area from the camera’s view, this function is used when you want to detect motions for the specific areas that you have selected only. The whole recording area is divided into 16 (128x128), 20 (160x128), and 25 (240x240, 320x240, 480x480, and 640x480) blocks depending on the resolution. You can move the cursor among from the blocks by using the direction buttons, and press [ENT] to select (red colored O) or cancel (blue colored -) specific blocks. After selecting all the blocks for the motion detection, press [ESC] to escape from the “EDIT” mode and to go to the four options below. Select “SAVE” and press [ENT] to save the selected blocks.



ALL: Select all blocks
CLEAR: Cancel all blocks
EDIT: Select/Cancel blocks
SAVE: Save and Exit

Caution: If you select “CLEAR” and save it by pressing [ENT], then the Self-Guard does not record any images even if there is a motion, because no area is selected for

the Self-Guard to detect the motions. Accordingly, be sure to select at least one block in order for the Self-Guard to detect and record the images.

4-2-2. AUDIO SET (SG-2000, SG-3000 only)

This function turns on and off audio recording function, and you can select either a built-in microphone or an external microphone. When you turn on “3.EXT MIC”, be sure that there is an external microphone connected to the external microphone input port to record audio. Set off “1.AUDIO” to record video only.

4-2-3. SIZE (Image Resolution for Recording)

This function adjusts the resolution of images. The ranges of the resolution are 128x128, 160x128, 240x240, 320x240, 480x480, and 640x480 pixels.

4-2-4. ZOOM

When this function is set to ON, and recording with built-in camera(s), then you can record images with a Zoom-In function. This Zoom-In function can be used for the image resolutions of 128x128, 160x128, 240x240, and 320x240. In 128x128 and160x128, you can magnify by 16 times of the image recorded, and by 4 times in 240x240 and 320x240.

4-2-5. OVERWRITE (Overwrite when memory is full)

If you set this Overwrite function to on, then the oldest file in dates gets replaced by the new file being recorded, enabling the Self-Guard to continue to record when the memory is full. If this function is off, and the memory is full with the existing files, then

the Self-Guard stops from recording video, and returns back to the initial menu mode, displaying “STOP! MEM FULL” on the LCD screen. Press any button to remove this message from the screen. If “1.AUTO OFF” (“4. OPTION” mode → “9.OTHERS” → “3.POWER SET”) is not set to “0 minute” but instead, set to “1-9 minutes”, then the Self-Guard automatically turns off its power after selected time gets elapsed.

	BUILT-IN	MICRO SD	USB
Types of Memory	Built-in Flash Memory	Additional Memory Card	USB Memory Stick or USB Hard Disk

Memory Usage Sequence when “OVERWRITE” is “ON”

BUILT-IN	MICRO SD	USB	Memory Usage Sequence
O	-	-	BUILT-IN → BUILT-IN
O	O	-	BUILT-IN → MICRO SD → BUILT-IN
O	-	O	BUILT-IN → USB → BUILT-IN
O	O	O	BUILT-IN → MICRO SD → USB → BUILT-IN

When “5.FILE LIM.” function is turned OFF, you cannot make “OVERWRITE” function turned ON. To turn ON “OVERWRITE” function, it is required to turn ON “5.FILE LIM.” function first.

Memory Usage Sequence when “OVERWRITE” is “OFF”

BUILT-IN	MICRO SD	USB	Memory Usage Sequence
O	-	-	BUILT-IN → Stop
O	O	-	BUILT-IN → MICRO SD → Stop
O	-	O	BUILT-IN → USB → Stop
O	O	O	BUILT-IN → MICRO SD → USB → Stop

4-2-6. SCHEDULE

You can program the Self-Guard to reserve recording time schedule in 4 time frames for a day. Press [◁] or [▷] to turn ON and OFF each schedule. You can preset each schedule by pressing the [ENT]. If you turn off all options in the schedule menu, then the Self-Guard turns on “1.ALL DAY” automatically. If you go into the Record Mode outside of the preset recording time, then the LCD displays with “CHECK SCHEDULE” message for 5 seconds, and goes into the sleep mode. When the time becomes for the

preset time schedule, Self-Guard exits from the Sleep mode and starts to record. If you press [ESC] or [ENT] when the Self-Guard is in the sleep mode, then the LCD will display with a message, “CHECK SCHEDULE” for 5 seconds. During this message is displayed on the LCD, if you press [ESC], then Self-Guard exits from the sleep mode and goes into the menu mode. If you do not press [ESC] for that 5 seconds, then the Self-Guard keeps its sleep mode.

4-2-6-1. ALL DAY

If you turn on this option, then the Self-Guard records for 24 hours, all day long continuously.

4-2-6-2. 08-11: OFF

Recording time schedule number 1.

Press [ENT] then the next screen appears in the LCD as below. You can change for the time using direction buttons.

4-2-6-3. 11-14 : OFF

Recording time schedule number 2.

4-2-6-4. 14-17 : OFF

Recording time schedule number 3.

4-2-6-5. 17-20 : OFF

Recording time schedule number 4.

4-2-7. Timestamp Set

4-2-7-1. TIMESTAMP

This function is to make the time and date information appear and overlap with the recorded image.

4-2-7-1. POSITION

Use [◁] or [▷] button to change the position of Timestamp either to TOP or BOTTOM.

4-3. SEARCH SET

Select “3.SEARCH SET” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below.

4-3-1. REPEAT: OFF

If you turn on “a. REPEAT”, then it keeps repeating playback the file. When it is turned off, then the file stops from playing after its first playback.

4-3-2. AUDIO: ON

If you turn on “2. AUDIO”, then “3.BT AUDIO” automatically becomes “OFF”, and plays the audio recorded by the microphone (internal or external). If you turn off “2.AUDIO”, and select one of the Bluetooth channel (BT1 – BT 7), then the audio for the selected channel gets played from the speaker. If you turn off both for the “2.AUDIO” and “3.BT AUDIO”, then only the video will play without the audio.

4-3-3. BT AUDIO: OFF (SG-3000 only)

You can select one from the 8 options (OFF, BT1 – BT7). If you select OFF for "3. BT AUDIO", then the Self-Guard does not play the audio recorded by the slave Self-Guard via Bluetooth. If you select one from BT1 to BT7, then "2.AUDIO" automatically becomes "OFF", and the audio from a Bluetooth channel gets played. If "3.BT AUDIO" is OFF and

"2.AUDIO" is ON, then the Self-Guard play the audio recorded by the microphone. If you turn off both for the "2.AUDIO" and "3.BT AUDIO", then only the video will play without the audio.

4-3-4. FASTAUDIO: OFF

If you turn on "3. FASTAUDIO", then the audio and video plays together during the High-Speed Play. When it is turned off, then only the video plays during the High-Speed Play.

4-3-5. TIME SYNC: OFF

Time Sync function decides on whether to playback each file saved from different cameras synchronized with the time. During playback, you can switch between 4-channel mode and single channel mode by pressing [▽]. If you turn on Time Sync function, and change the channels in a single-channel mode one by one and play it, then the time frames of each file gets automatically synchronized with all files as you press "**->** (Play)", so that that you can play from the same position stopped from the other cameras.

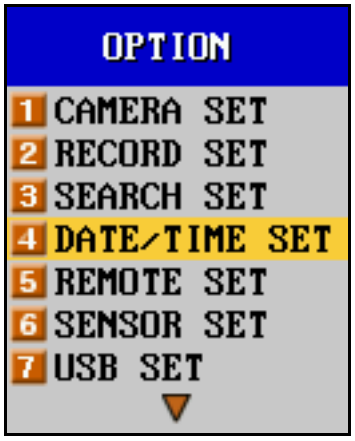
In the time frame, if there is no saved image for a certain position (time) from camera 2 to be synchronized with camera 1, then the time frame bar for camera 2 moves to its closest position to that certain time. If this function is turned on and you switch into 4-channel mode from single-channel mode, then all four files are synchronized with time. If this function was turned off, and you have played each file in the single-channel mode and stopped in different positions in the time frame bar, but switch into 4-channel mode, then it takes about 2 to 3 seconds for all the files to be synchronized with the time. And the screen displays with the massage, "Sync…" for that time.

If you turn off the Time Sync function, then it does not synchronize with the time even if you change the channels by pressing [▽], or press "**->** (Play)" or "**|>** (Move forward by 1 frame)" after changing the channel. But, if you switch into 4-channel mode and press "**->** (Play)" or "**|>** (Move forward by 1 frame)", then the files are synchronized with the exact or closest time regardless of the Time Sync ON, OFF. The reason for synchronizing all the files with the time is to match the video with the audio being played.

4-3-6. SYNC MSG: ON

This function is to decide whether to display the massage, "Sync…" on the screen while synchronizing the files.

4-4. DATE/TIME SET



Select "4.DATE/TIME SET" using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below.

Using [◁] and [▷], you can move the cursor to the Date, Month, Year, and the Time, and use [△] and [▽] to change those variables. There are three ways to arrange these variables, and it varies in different localities.

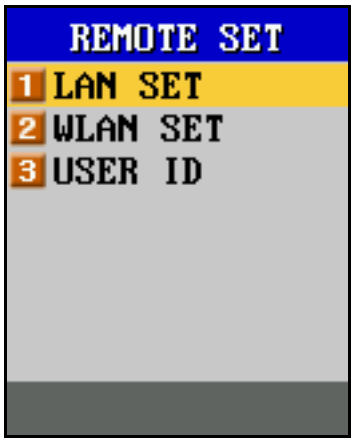
Move the cursor to “TYPE” using [◁] and [▷], and press [△] and [▽] to change among three different types. The types will be changed in regular sequence (DD/MM/YY → MM/DD/YY → YY/MM/DD). After setting all the variables, be sure to press [ENT] to save those new variables.

4-4-1. DST SET

First, set DST function to on, and use [◁] and [▷] to move the cursor to the Date, Month, and Hour and use [△] and [▽] to change those variables.

4-5. REMOTE SET

Select “5.REMOTE SET” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below. To go to the previous menu, press [ESC].

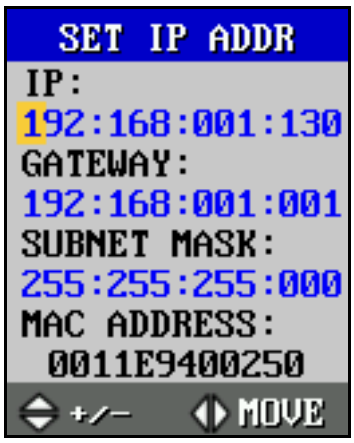


4-5-1. LAN SET

4-5-1-1. LAN: OFF

If “1.LAN” is set to on, then you can connect to the Self-Guard with your computer with the ID and the password by the network from a remote place. But, if “1.LAN” is set to off, then you cannot connect to the Self-Guard. When you are not using the LAN, turn it off to save the battery.

4-5-1-2. SET IP ADDR



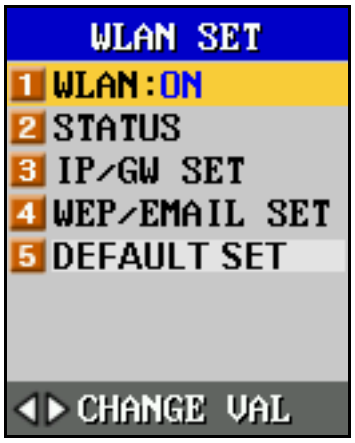
This function sets the address for IP, GATEWAY, and SUBNET MASK. The default values are 192 : 168 : 001 : (001) : 130 (IP), 192 : 168 : 001 : 001 (GATEWAY), and 255 : 255 : 255 : 000 (SUBNET MASK). You can change these values using the direction buttons, and press [ENT] to save the changed values. [◁] and [▷] are for moving the cursor to where you want to change the value with. [△] and [▽] are to increase/decrease the numbers for these addresses.

4-5-2. WLAN SET

If you did not purchase the SG-970(Wireless-G Access Point), you do not need to read this part.

SG-970 (Wireless-G Access Point) and SG-972 (Wireless-G USB Adaptor) should be used for WLAN SET. Before using WLAN SET, read and follow instructions provided with SG-970 (Wireless-G Access Point) to connect this to the Internet, and then connect SG-972 (Wireless-G USB Adaptor) to the USB port of Self-Guard. After the Wireless-G Access Point is connected with internet properly, you can connect to the

Self-Guard from a remote place. The Wireless-G Access Point is already set for immediate use once connected to the internet. Select 2.WLAN SET from 4.OPTION and then 5.REMOTE SET. Then the next screen appears in the LCD as below.

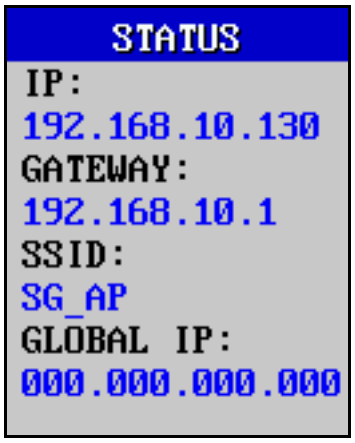


4-5-2-1. WLAN

Before using WLAN function, turn on 1.USB (4.OPTION → 7.USB SET), and then turn on WLAN function to connect to the Self-Guard from a remote place.

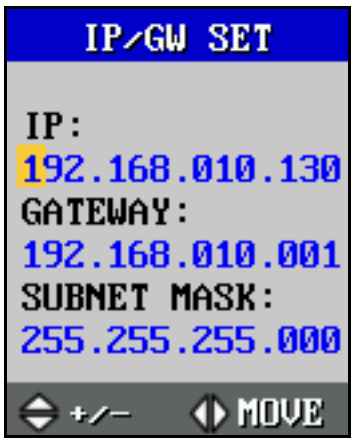
When the Wireless-G Access Point is turned on, Self-Guard will be connected to the Wireless-G Access Point after 5-10 seconds from you set this function to ON. Then a message, “WLAN CONNECTED” will appear on the screen. You have to wait until you can get confirmed of this message to properly connect to the Self-Guard from a remote place with your PC.

4-5-2-2. STATUS



Once the wireless LAN connection is accomplished, this function is to verify on the IP address that the Self-Guard is using, the GATEWAY address of the “Wireless-G Access Point”, the name of the “Wireless –G Access Point - SSID, and GLOBAL IP address of the of the “Wireless-G Access Point”. The GLOBAL IP address of the “Wireless-G Access Point” is used to connect to Self-Guard units from a remote place with the provided remote software. If the wireless LAN does not operate normally, then this GLOBAL IP will be indicated as 000.000.000.000.

4-5-2-3. IP/GW SET



This function is to set the address for IP, GATEWAY, and SUBNET MASK of the Self-Guard. Use [△] and [▽] to change the value and [◁] and [▷] to move the cursor, and then press [ENT] to save the changes. If you need to change the IP, GATEWAY, SUBNET MASK of the Self-Guard, you should make changes for the Wireless-G Access Point to change the settings. Refer to the User’s Guide (Wireless-G Access Point) for detailed instruction.

Wireless-G Access Point uses DMZ to send the external data from Internet to the Self-Guard, and the DMZ value is set as the Self-Guard’s default IP address (192.168.10.130). When you change the IP address for the Self-Guard, you need to change the IP address of DMZ settings of the Wireless-G Access Point. Refer to the User’s Guide (Wireless-G Access Point) for detailed instructions on how to change this value.

4-5-2-4. WEP/EMAIL SET

Wireless LAN function of Self-Guard is encrypted with 128bit WEP Key of Hexadecimal Notation, 26 Characters-Roman alphabet. If you do not want to use WEP key, then turn off this function, however the Wireless LAN function will not be secured. When you turn off WEP KEY function, you need to change the WEB KEY of Wireless-G Access Point to “Disable”. Refer to the User’s Guide of Wireless-G Access Point to change the WEB KEY, and then input the new value using the direction buttons.

When you connect to the Self-Guard from a remote place via internet, you need to know the external IP address of the Wireless-G Access Point. In case of using float IP, the IP gets changed when the Modem power goes out and comes back on again. Self-Guard lets know of this new IP to the user by E-MAIL. If you turn on EMAIL ADDR and input an E-MAIL address, then Self-Guard sends an E-MAIL with the new external IP address every time it gets changed.

4-5-2-5. DEFAULT SET

Move the cursor to 5.DEFAULT SET, press [ENT] and then select “YES” to initialize WLAN SET.

4-5-3. USER ID

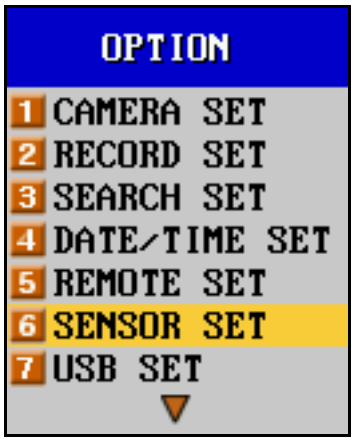
When connecting to the Self-Guard from a PC, you need the ID and the password for the remote access program. The initial default IDs are from “user00” to “user07”, and the passwords are “0000”. Move the cursor to the ID that you want to change for using the [△] and [▽], and press [ENT]. Then a new window appears to change the ID and the password as below.

To change the ID and the password, follow the next steps:

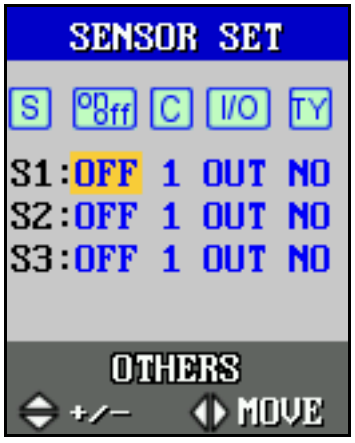
Using [△] and [▽] choose a letter or a number for your new user ID and the password, and the cursor moves to the next position as you press [▷]. Repeat to do so until you fill up the new values, and complete changing your ID and the password. Once you put in the new values for the password, enter the same password again to confirm the new password.

You must press [ENT] to save the new ID and password. If you press [ESC] after putting in the new values, then the new ID and the password cannot be saved.

4-6. SENSOR SET



Select “6.SENSOR SET” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below.



This function sets several options regarding with the external sensors such as, the methods (Input/Output), and the kinds (NO/NC). You can turn on and off the sensors connected to the Self-Guard with this function. You can also link the sensors with the cameras to record the images of the camera when there is a change in the state of the sensors. If there is a changes in the state of the sensors or detects a motion by the image processing algorithm, then you can set the Self-Guard to turn on the alarm linked to the sensor port selected as the output. Also, you can send an alarm signal to the remote PC connected with the Self-Guard. Move the cursor to each option in the Sensor set using the Direction buttons, and press [ENT] to change that value.

S: Number of each Sensor Port (S1, S2, S3).

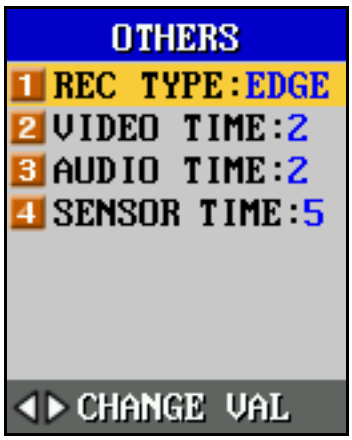
On/Off: On(Sensor On), Off(Sensor Off). You must turn on the sensor port that is selected as the input, so that the Self-Guard can react to a change in the state of the sensor connected to the input port. When you set it to off, Self-Guard does not respond to any changes in the sate of the sensors. The sensor ports set as the output must be turned on to activate connected components (siren, warning lamp etc.).

C: You can have up to six cameras (1-6) for a Self-Guard, and can only choose the cameras that are turned on in the “Camera Set” from the menu. When it is linked to a sensor and there is a change in its state, then the Self-Guard starts to record images from the selected camera for the selected amount of time.

I/O: Sets the sensor ports as an Input(I) or an Output(O).

TY: Sets the types of the sensors between NO(Normal Open) or NC(Normal close). The sensor state is normally open when it is “NO”, and the sensor state is normally closed when it is “NC”.

OTHERS: Use the direction buttons to move to “OTHERS”, and press [ENT] to see more options related to the sensors as below.



4-6-1.REC TYPE: Sets the recording type, when there is a change in the state of the sensor selected as the input. There are two types (EDGE, NORM) for recording. In the

“EDGE” mode, it starts to record audio and video for the time set in the “2.VIDEO TIME” and “3.AUDIO TIME” as soon as there is a change in the state of the sensors. In the “NORM” mode, it starts to record audio and video as soon as the sensor detects a change in its state until the sensor goes back to the original state, regardless of the “2.VIDEO TIME” and “3.AUDIO TIME”. In other words, if you set the “1.REC TYPE” to “NORM” then “2.VIDEO TIME” and “3.AUDIO TIME” are deactivated.

4-6-2.VIDEO TIME: In the “EDGE” mode (1.REC TYPE), it sets the video recording time (0-9 seconds), when there is a change in the state of the sensors. If you set it to 0, then the Self-Guard will not record any images even if there is a change in the state of the sensor.

4-6-3.AUDIO TIME: In the “EDGE” mode (1.REC TYPE), it sets the audio recording time(0-9 seconds), when there is a change in the state of the sensors. If you set it to 0, then the Self-Guard will not record any sounds even if there is a change in the state of the sensor.

4-6-4.SENSOR TIME: The Self-Guard activates the sensor port selected as the output, when one of any input sensor detects a motion, and the Self-Guard activates the output port for the selected amount of time (0 to 9 seconds). Set SENSOR TIME to 0 to deactivate.

4-7. USB SET

Select “7.USB SET” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below. To go to the previous menu, press [ESC].

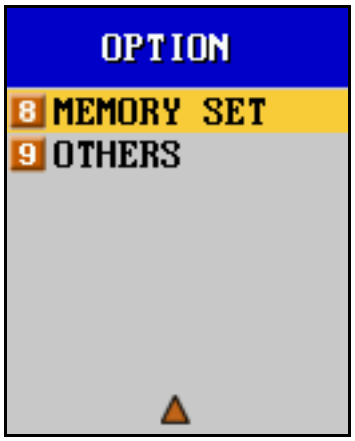
This option turns on and off the USB function. When you are not using the USB memory device, turn it off to save the battery. Do not insert or remove USB memory devices from the USB port in the Self-Guard while recording or searching.
When you connect an USB memory device to the Self-Guard, a new menu (“REMOVE USB”) will appear in the main menu as below.

When you remove the USB memory device from the Self-Guard, you must exit from “RECORD” or “SEARCH” mode, and select “REMOVE USB” from main menu and press [ENT] button.

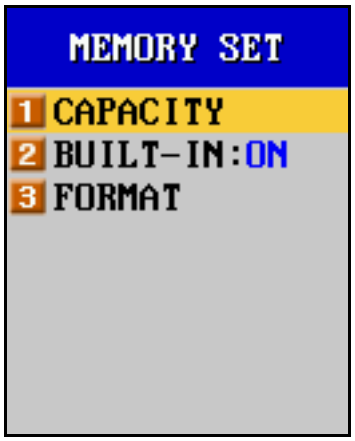
Cautions: Do not insert or remove USB memory devices from the USB port in the Self-Guard while recording or searching. When you remove the USB memory device from the Self-Guard, you must exit from “RECORD” or “SEARCH” mode, and select “REMOVE USB” from main menu and press [ENT] button. After “REMOVE USB NOW” message appears on the LCD, you can remove the USB memory device from the Self-Guard.

When you back up the Self-Guard’s data to your computer, first, copy the data in the Self-Guard to a USB memory device, and then insert that USB memory device to the USB port in the computer to copy the data in USB memory device to the computer. Use only the USB cable provided in the package. It may cause damage to both the Self-Guard and the computer if you connect the Self-Guard to the computer using other USB cables directly. When you want to use USB hard-disk, connect AC adaptor to the Self-Guard before connecting the USB hard-disk to the Self-Guard. Otherwise it may cause damage to the Self-Guard.

4-8. MEMORY SET



Select “MEMORY SET” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below.



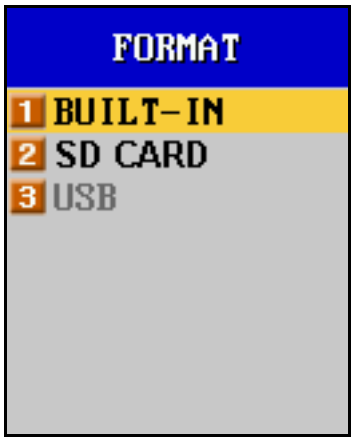
4-8-1. CAPACITY

This information lists total capacity and used memory of each memory.

4-8-2. BUILT-IN

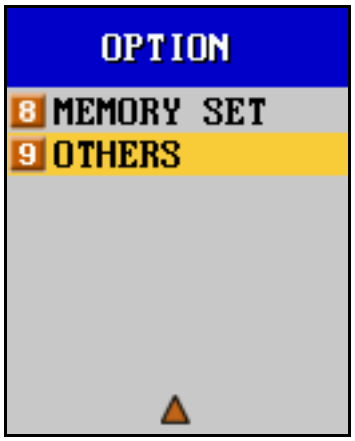
Turn OFF this function when you want to store data to external memory devices only. When this function is OFF and there is no external memory device to record the data, Self-Guard records data onto the built-in memory. If external memory device gets available again, then Self-Guard closes the file being recorded to the built-in memory and starts to record the data onto the external memory device.

4-8-3. FORMAT

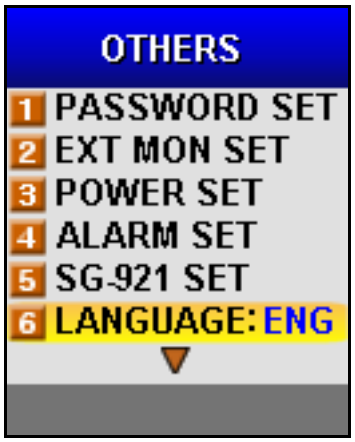


“FORMAT” is to format the memories, and clear all the data saved in the memory. Note that this memory format function deletes the data even if they are locked from deleting in “SEARCH”. There are three types of memories you can format; “BUILT-IN”, “MICRO SD”, and “USB”. “BUILT-IN” is the built-in, internal memory of the Self-Guard. “MICRO SD” is the extensive memory device placed on the top of the Self-Guard, which can be inserted or removed by the user. And the “USB” memory is inserted into the USB port of the Self-Guard. Self-Guard detects the existence of the extensive memory devices in the Self-Guard, and you will not be able to select the memory’s name, if it is not in the Self-Guard. If there are no “MICRO SD” and “USB” memories in your Self-Guard, then the self-Guard detects that and, you will not be able to select those memory names in the menu to format.

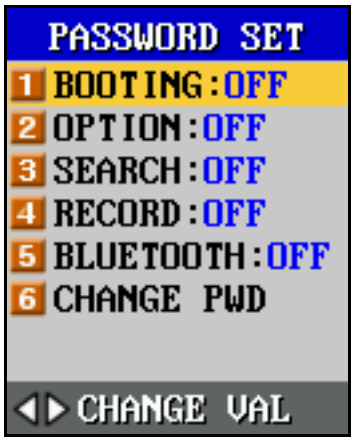
4-9. OTHERS



Select “OTHERS” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below.



4-9-1. PASSWORD SET



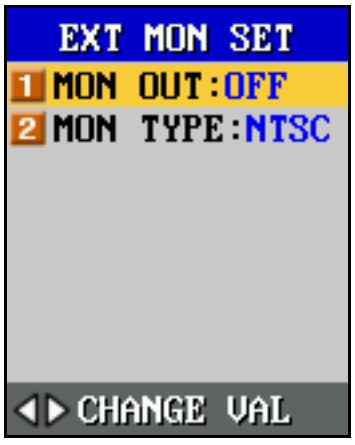
You can prohibit people without authority from accessing the Self-Guard by setting up a password for each function (BOOTING, OPTION, SEARCH, and RECORD). You can turn on and off each function in “CHANGE PWD”.

Functions	When each function is set with a password
BOOTING	Put in the password for the Self-Guard to operate when you turn it on.
OPTION	Put in the password to change various settings or options.
SEARCH	Put in the password to search the data.
RECORD	Put in the password to start recording.
BLUETOOTH	Put in the password to access other Self-Guards via BLUETOOTH

The initial default password is “0000”. To change the password, first, put in the password that you have been using so far, and then put in the new password.

The password reads as “****” as you put in the password. Using [△] and [▽], choose a number for your password, then the number reads as ‘*’, and the cursor moves to the next position as you press [▷]. After you complete putting in all the numbers, press [ENT] and repeat the same process until you complete putting in all the numbers for the password. Once you put in the correct value that matches with the old password, you will be asked to put in the new password. Repeat the same process as above, and enter the same password again to confirm the new password. You must press [ENT] to save the new password. If you press [ESC] after putting in the new values, then the password cannot be saved.

4-9-2. EXT MON SET



Self-Guard has the A/V (Audio/ Video) output ports, so that you can connect other components such as, an external monitor and a speaker like a TV. So, you can see the larger images, and hear the sounds in better-quality than you can in the LCD of the Self-Guard.

If you press [△] while you playback the data with an external monitor, you can choose the menu (OSD) to appear on the screen or not. However, [△] is also used to magnify the image while you playback the data from the LCD. So, if "1.MON OUT" is on, then you cannot magnify the image while you playback the data with the LCD of the Self-Guard. You must set OFF "1.MON OUT to use the magnifying function while playback the data from the LCD of the Self-Guard. In other words, magnifying function cannot be applied to the external monitor. The Self-Guard's video output type supports for both NTSC and PAL, so choose the correct type for your own external monitor. You use NTSC in North America, and PAL in Europe. When you are not using an external monitor, turn OFF "1.MON OUT" to save the battery.

4-9-3. POWER SET

4-9-3-1. AUTO OFF: 5min

The Self-Guard automatically turns off the power or goes into the power-savings mode if you don't press any button for a certain amount of time (0-9 minutes).

In "RECORD" and "TRANSMIT" modes, Self-Guard turns off only the LCD, LAMP for the battery status and the LAMP for the recording status to save the battery. But, in the

rest of the modes besides “RECORD” and “TRANSMIT”, it turns off the power completely. Set the time to 0 to deactivate the “1. AUTO OFF” function.

4-9-3-2. SAVE AC: OFF

This function is to save the power by using the low-powering technology. If there is no motion then the Self-Guard goes into the sleep-mode. After 2 seconds have elapsed, the Self-Guard wake up and check if there is a motion. If there is no motion then the Self-Guard goes into sleep-mode again, but if there is a motion then the Self-Guard start to record.

This low-powering technology is very important when you are using the battery as power source for the Self-Guard. But, if you use the AC power for the Self-Guard to operate, then this low-powering technology is not much helpful to you.

Suppose that if you want to record for a long time and there is no AC power then you need another battery to operate the Self-Guard for such a long time. If you get battery with 5 volts output then you can connect that battery to the AC adaptor input port of the Self-Guard directly. And the Self-Guard does not recognize the difference between the battery and the AC power connected to the power input port, so that you can save the battery even though it is connected to the AC power port.

If the Self-Guard recognizes that it is a battery connected to the power input port of the Self-Guard then this “2.SAVE AC” function is not needed. But the Self-Guard does not recognizes the difference, and this “2.SAVE AC” function is needed separately from “3.SAVE BAT”. In the case that you want to record objects passing once and quickly before the Self-Guard, then turn off this function.

It can also extend the lifetime of the external battery pack (SG-938) by setting this function to ON.

Caution: Set it to OFF when using the Remote Access (LAN) or the Bluetooth.

4-9-3-3. SAVE BAT: ON

This function is to save the battery by using the low-powering technology. If there is no motion then the Self-Guard goes into the sleep-mode. After 2 seconds have elapsed, the Self-Guard wake up and check if there is a motion. If there is no motion then the

Self-Guard goes into sleep-mode again, but if there is a motion then the Self-Guard start to record. This low-powering technology is very important when you are using the battery as power source for the Self-Guard. In the case that you want to record objects passing once and quickly before the Self-Guard, then turn off this function.

Caution: Set it to off when using the Remote Access (LAN) or the Bluetooth.

4-9-3-4. ULTRA SAV: OFF

This function is used when you are using the battery to operate the Self-Guard, and to maximize the battery's life time. If you turn on this function, then the Self-Guard goes into the Ultra Power Save mode if no motion is detected for 10 minutes. In order for the Self-Guard to come out of this mode, it has to detect an audio. Self-Guard does not come out of the Ultra Power Save mode even if it detects motions if you set on this function. Accordingly, even if there is a motion detected by the Self-Guard, it does not record data if there is no audio detected after the Self-Guard goes into this mode. Be very careful of using this function in such places where there may be no audio detected by the Self-Guard at all.

Caution: Set it to off when using the Remote Access (LAN) or the Bluetooth.

4-9-3-5. VIDEO TIME: 5

You need to set the "VIDEO TIME" (0-9 seconds) to record the images when the camera detects motions. For example, if you set the "VIDEO TIME" to 2, then the Self-Guard starts to record the images from the camera for 2 seconds as soon as it detects a motion. But if it detects another motion during recording the image for the previously detected motion, then the recording time for that newly detected motion automatically becomes another whole set value of 2 seconds.

Caution: If you set this time to 0, then the Self-Guard will not record any images even if it detects motions.

4-9-3-6. AUDIO TIME: 5

This function sets for the audio recording time (0-9 seconds). When "AUDIO DET" is set to OFF, then the Self-Guard starts to record audio only in the case that the Self-Guard detects both the motions from the camera and sounds by the microphone. When

"AUDIO DET" is set to on, then the Self-Guard starts to record audio when the Self-Guard detects sounds from the microphone regardless of the motions detected from the camera. Audio recording time set is the same as with the above "Video Recording Time Set".

Caution: If you set this time to 0, then the Self-Guard will not record the sound even if it detects sound.

4-9-3-7. AUDIO DET: OFF

This is whether to turn on and off audio detection function. This function is related to the battery life time, and you should turn off this function if you want to extend the battery life.

Option ON/OFF	Video Detection	Audio Detection	**Record Audio**
AUDIO DET:OFF	YES	YES	**YES**
AUDIO DET:OFF	YES	NO	**NO**
AUDIO DET:OFF	NO	YES/NO	**NO**
AUDIO DET:ON	YES/NO	YES	**YES**
AUDIO DET:ON	YES/NO	NO	**NO**
AUDIO DET:CON	YES/NO	YES/NO	**YES**

When this function is set to OFF:

Self-Guard is programmed to record audio when Self-Guard detects motion from the camera and audio from the microphone at the same time. Accordingly, even if there is audio, Self-Guard goes into sleep mode and does not record audio when there is no motion detected for selected time (1-9 sec., default 5 sec.) after the very last motion detection. Self-Guard comes out of the sleep mode every 2 seconds to check if there is a motion, and if it detects motion and audio, then it records audio. However, it does not record audio when there is audio if there is no motion. This will result in discontinuance audio sound during playback. Despite of the audio discontinuance, it is a very useful function to extend the battery life for recording when Self-Guard is placed in a very loud place.

When this function is set to ON:

Self-Guard is programmed to record audio as soon as it detects an audio even if there is no motion. When there is no motion or an audio, Self-Guard goes into sleep mode, and check if there is a motion every 2 seconds. Self-Guard comes out of sleep mode

as soon as it detects audio sound even when it is in the sleep mode. In this mode, Self-Guard is programmed to record with any audio detection, so you should be careful in turning this function to ON in a loud place to prevent from wasting the battery.

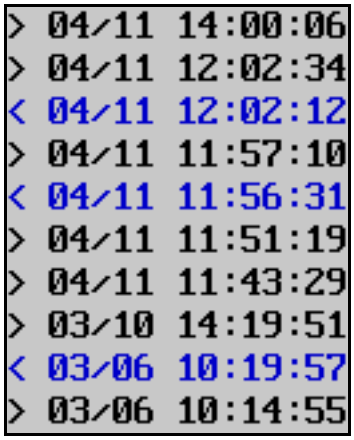
When this function is set to CON:
Self-Guard is programmed to record constantly regardless of audio or motion detection. In this mode, battery gets consumed very fast requiring your attention. You are recommended to use this mode only when you need to record very small audio sound under the possible level of audio detection.

4-9-3-8. DET. LEVEL: 1

Select audio detection level from 1 to 26. Lower the level for this function, it will detect smaller sound. If you want to set the unit to record on loud audio detection, increase the level to large numbers. If you set this level to a low value in a place with loud noise, then Self-Guard will detect the noise as audio and thus record this noise. Test before setting this level to avoid detecting and recording of noise.

4-9-3-9. ON/OFF INFO

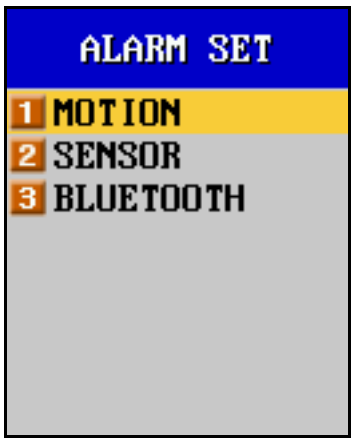
It shows 10 last history of power ON/OFF. The date and time is recorded for each power on and off. If the power of the Self-Guard is gone abnormally such as, detaching the battery from the Self-Guard during the operation, then the Self-Guard will not record it in the power off history. This information will tell you either Self-Guard was turned on and off properly or not properly either by user or somebody else.



The black colored date/time (> 03/10 14:19:51) indicates you of the time that you turned on the Self-Guard. The blue colored date/time (< 04/11 11:56:31) indicates you of the time that you turned off the Self-Guard.

4-9-4. ALARM SET

If you set the alarm volume too loud, then that sound may be louder than the audio detected by the Self-Guard's internal microphone and the Self-Guard may not record the audio accordingly. Be cautious when you set the volume to high level.



4-9-4-1. MOTION

Set up for alarm functions when the Self-Guard detects motions by the camera.

4-9-4-1-1. CHANNEL SET

Turns ON/OFF the alarm for each camera when the Self-Guard detects motion by the each camera.

4-9-4-1-2. TIME: 0.2

When a motion is detected by the camera then the Self-Guard generates an alarm from the internal speaker. The duration of the alarm is from 0.2 to 9 seconds.

4-9-4-1-3. TYPE: 1

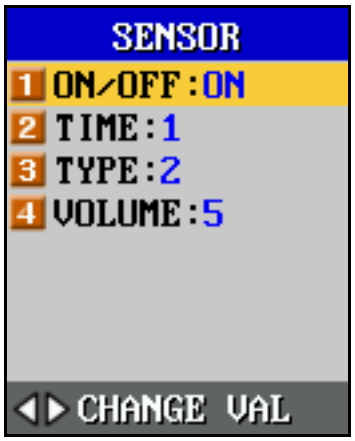
Set types for the alarm when a motion is detected by the camera. There are 5 different types for the alarm (1 - 5).

4-9-4-1-4. VOLUME: 5

Set the volume for the alarm when a motion is detected by the camera. There are 9 different levels for the volume (1 - 9).

4-9-4-2. SENSOR

Turns ON/OFF the alarm when there is a change in the state of the sensor selected as the input.



4-9-4-2-1. ON/OFF: OFF

Set the alarm function when there is a change in the state of the sensor selected as the input.

4-9-4-2-2. TIME: 0.2

When there is a change in the state of the sensor selected as an input, the Self-Guard generates an alarm from the internal speaker. The duration of the alarm is from 0.2 to 9 seconds.

4-9-4-2-3. TYPE: 2

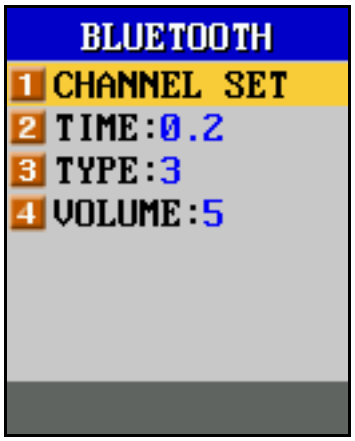
Set the type for the alarm when there is a change in the state of the sensor selected as an input. There are 5 different types for the alarm (1 - 5).

4-9-4-2-4. VOLUME: 5

Set the volume for the alarm when there is a change in the state of the sensor selected as an input. There are 5 different levels for the volume (1 - 9).

4-9-4-3. BLUETOOTH (SG-3000 only)

Set the alarm function for each Bluetooth channel when there is a motion detected by the camera of the Self-Guards which are connected wirelessly via Bluetooth.



4-9-4-3-1. CHANNEL SET

Turns ON/OFF the alarm for each Bluetooth channel when there is a motion detected by the camera of the Self-Guards which are connected wirelessly via Bluetooth.

4-9-4-3-2. TIME: 0.2

When there is a motion detected by the camera of the Self-Guards which are connected wirelessly via Bluetooth, the Self-Guard generates an alarm from the internal speaker. The duration of the alarm is from 0.2 to 9 seconds.

4-9-4-3-3. TYPE: 3

Set the type for the alarm when there is a motion detected by the camera of the Self-Guards which are connected wirelessly via Bluetooth. There are 5 different types for the alarm (1 - 5).

4-9-4-3-4. VOLUME: 5

Set the volume for the alarm when there is a motion detected by the camera of the Self-Guards which are connected wirelessly via Bluetooth. There are 9 different levels for the volume (1 - 9).

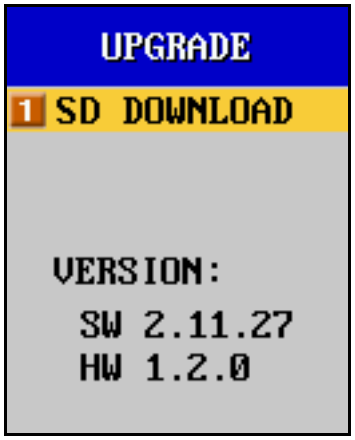
4-9-5. SG-921 SET

If you did not purchase the SG-921(Wireless Receiver), you don't need to read this part. This function is to control the SG-921, which can receive the data transmitted from the "analog wireless transmission camera (2.4 GHz)". You must turn it on to activate this function. Using the SG-921 you can record 4 cameras simultaneously or you can turn on and off the external camera(s) you want from "OPTION"→"CAMERA SET". For the SG-921, for example, the external camera NO.3 becomes wireless camera NO.1, and the external camera NO.4 becomes wireless camera NO.2, and so on. If this function is set to on, then SENSOR function will be deactivated automatically. When you are not using this function, turn it off.

4-9-6. LANGUAGE: ENG

This is to select the language to be displayed in the menu. ENG is for the menu in English, KOR is for Korean, and JAP is for Japanese.

4-9-7. UPGRADE



"UPGRADE" is to upgrade the Self-Guard's software to its latest version. To access this upgrade function, it should have MICRO SD memory card inserted into the unit. Self-Guard must be connected with AC/DC adaptor, and the battery lamp must be flashing with green light in order to process this UPGRADE function.

"Version" indicates of the Self-Guard's version for its software and hardware.

4-9-7-1. SD DOWNLOAD

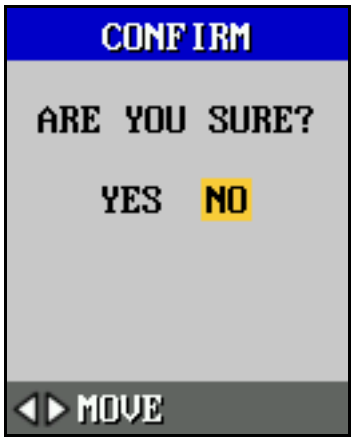
This function can be used only with the MICRO SD memory card for the use of upgrades.

You can make a MICRO SD memory card to be upgradeable by copying an upgrade file or a version file for each model to the MICRO SD card's route directory.

Insert that upgradeable MICRO SD memory card into the memory card slot on the unit, and select "1.SD DOWNLOAD", then the Self-Guard automatically changes its version to its latest. After that, Self-Guard reboots and finishes upgrading process.

If the MICRO SD memory gets detached from the unit or the power goes out unexpectedly while upgrading the software, then separate the battery from the unit to reboot the system and restart the upgrading.

4-9-8. DEFAULT SET



This function is to change the values set in all the menus back to its default set. Select "YES" and press [ENT] to change all the values to the "DEFAULT SET". Note that all the values changed by the user will be deleted once you change the values back to the "DEFAULT SET".

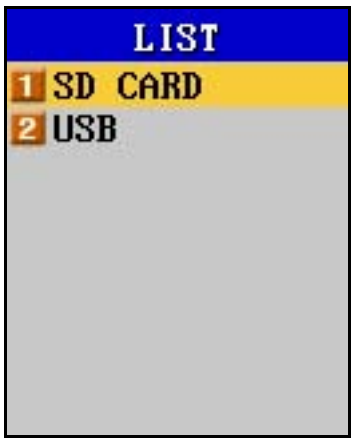
4-9-9. SG NAME

This function is to put in the Self-Guard's name, and used to back up the data of many Self-Guards to the MICRO SD or USB memory devices (USB Memory or USB Hard Disk). Self-Guard creates a directory name by the date, and the file name by the time. So, if there already exists a directory name backed up to the MICRO SD or USB memory from another Self-Guard, and you want to back up a directory created on the same date by another Self-Guard, then the existing directory name in the MICRO SD or USB memory gets over-written by the new data from the other Self-Guard. To prevent this when you are backing up the data to the MICRO SD or USB memory devices, you need to make a name for each Self-Guard, and create directory names for all the Self-Guards in the USB memory in order to back up the data to the MICRO SD or USB memory under the correct Self-Guard's name in the MICRO SD or USB memory devices. Of all the data in the USB memory backed up from the Self-Guards, Self-Guard is designed to search only for the file, which has the same directory name in your Self-Guard and in the MICRO SD or USB memory device. But, you can search the data of other Self-Guards backed up in the MICRO SD or USB memory device with your Self-Guard if you change your Self-Guard's name to that specific Self-Guard's, which you want to search with. Then the searching program recognizes your Self-Guard as the other, and you can search the data of the other Self-Guard.

You can change the name by using the direction buttons. Press [ENT] to save the changed name, and press [ESC] to cancel the changed name.

MICRO SD or USB memory devices must be inserted into the Self-Guard when you want to search for SG names registered in those devices. Select a SG name and press [ENT] to search for a file under the selected SG name

The number which appears under the SG name is the product serial number. This serial number gets stored in a file together with the video and audio. When you are recording with several Self-Guard units, this serial number will be used to find out which Self-Guard is used for a certain file. When you playback a file with provided software, it will show with the product serial number so that you know which Self-Guard unit is used for that recorded file.



Select either 1.MICRO SD or 2.USB and press ENT button to check the SG names registered in each device.

5. TRANSMIT

Use the direction buttons to select “TRANSMIT”, and press [ENT]. Then the next screen appears in the LCD as below. To go to the previous menu, press [ESC].

If you set the Self-Guard to the “TRANSMIT” mode, then you can access the image and voice of the Self-Guard currently being recorded using a computer by LAN in the remote places. Also, you can copy the data in the Self-Guard to your remote computer.
Using the Bluetooth (SG-3000 only), you can wirelessly access or copy the image and voice of other Self-Guards with a Self-Guard from a remote place. You need to know the Self-Guard’s ID and the Password in order to connect to the Self-Guard by LAN with a computer. And when you want to connect a Self-Guard with other Self-Guards, you need to know the Bluetooth ID of the Self-Guard that you want to access the data of.
In “TRANSMIT” mode, even if the Self-Guard was cut from the power resources (battery or the adaptor), it automatically turns on itself, and returns to “TRANSMIT” mode as the Self-Guard gets provided with the power resources again. This function is very useful when you set the Self-Guard in a remote place from where you are, and cannot control over it immediately. All the functions in “TRANSMIT” are the same as in “1.RECORD”, except that the Self-Guard does not record data in “TRANSMIT” mode.

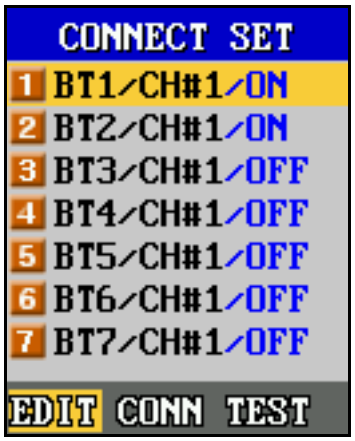
6. BLUETOOTH (SG-3000 only)

When using the Bluetooth, you can get faster image transmitting speed by setting the image compress resolution to 128x128 for the slave Self-Guards. The transmitting speed goes down as you increase the image compress resolution and set it higher than 128x128. It is recommended to set the image compress resolution to 128x128 when using the Bluetooth.

Select “BLUETOOTH” using the direction buttons, and press [ENT]. Then the next screen appears in the LCD as below. To go to the previous menu, press [ESC].

6-1. CONNECT SET

This function is to connect a master Self-Guard to seven (7) other slave Self-Guards wirelessly via Bluetooth, and “1.CONNECT SET” can only be activated when you select “2.M/S:MASTER” as MASTER. Move the cursor to “1.CONNECT SET”, and press [ENT], then a new window appears with seven Bluetooth Numbers (BT1-BT7) that you have logged in or the default set of IDs. These Bluetooth numbers are composed of the Bluetooth ID, camera channel number, and automatic connection ON/OFF information.



Select a Bluetooth number that you want to connect to using [△] and [▽], and select "CONNECT" using [◁] and [▷] and then press [ENT] to start the connection. If you want to change a slave Self-Guard's Bluetooth ID, camera channel number, and automatic connection ON/OFF information, use [△] and [▽] to select that Bluetooth number. Use [◁] and [▷] to select "EDIT" and press [ENT], then a new window appears as below.

6-1-1. CONNECT: ON

You can turn ON or OFF the automatic connection function via Bluetooth when you go into the "RECORD" or "TRANSMIT" mode.

6-1-2. SLAVE CAM: 1

If you connect to a slave Self-Guard wirelessly via Bluetooth, then you can request a certain camera number to be transmitted from the slave Self-Guard wirelessly via Bluetooth to your Self-Guard. For example, if you select 2 for the "SLAVE CAM", then

you get images from the camera channel number 2 transmitted to your master Self-Guard. If the camera channel number you have requested is not turned on, then the slave Self-Guard will send the images of the camera channel which is turned on and nearest to the requested channel number.

6-1-3. SLAVE PWD SET

If “5.BLUETOOTH” in “1.PASSWORD SET” from “9.OTHERS” is set to ON for the slave Self-Guard and requires you to input password, then you have to put in the correct password to access the slave Self-Guards wirelessly via Bluetooth with your master Self-Guard. But if you have logged in the password beforehand, then you do not have to input the password when you connect to the slave Self-Guards via Bluetooth. If you press [ENT], then the next screen appears in the LCD as below. Put in the password for the slave Self-Guard which you want to access for, and press [ENT].

6-1-4. 00:02:78:0C:60:C6

This is Bluetooth ID and you can change this ID using the direction buttons.

6-2. M/S: MASTER

The Self-Guard selected as a Master can be simultaneously connected to seven (7) different slave Self-Guards at the same time. Use [◁] and [▷] to set the Self-Guards either as a MASTER or a SLAVE. “A.CONNECT SET” can only be activated when you select “2.M/S:MASTER” as MASTER.

6-3. MY ID

This function is to find the Bluetooth ID for your Self-Guard. When you want to connect to the slave Self-Guards with your master Self-Guard, then you need to know the Bluetooth ID of the slave Self-Guard. You can confirm those Bluetooth IDs by checking from “3.MY ID” of the slave Self-Guards and then connect to the slave Self-Guards.

6-4. AUDIO: BT1

This function is to choose one Bluetooth channel to hear the audio from, once you are connected to several slave Self-Guards via Bluetooth (BT1-BT7).

6-5. AUTO CONN: 5

This function is to set ON or OFF the automatic connection option when the wireless connection via Bluetooth got lost caused by poor wireless network environments. The options for this function are OFF, 1-9, and OFF. If you set it with a number between 1 and 9, then the Self-Guard automatically tries to reconnect to each other for that selected number of times, and stops after those number of trials. If it is set to OFF, then the Self-Guard does not try to reconnect even after it gets disconnected. If you set this function to ON, then the Self-Guard will try to connect to other Self-Guards until it gets reconnected.

6-6. ANT TYPE: INT

Self-Guard has an internal antenna for the wireless function, and you can select this “ANT TYPE” to INT (internal) or EXT (external). When you use the internal antenna, the Self-Guard can transmit data up to 100 meters in places with no obstacles. If you use the high gain external antenna, you can increase the transmit range up to several kilometers. And the distance depends on the different kinds of antenna gain. After

loading external antenna onto the Self-Guard you must set this type to “EXT”.

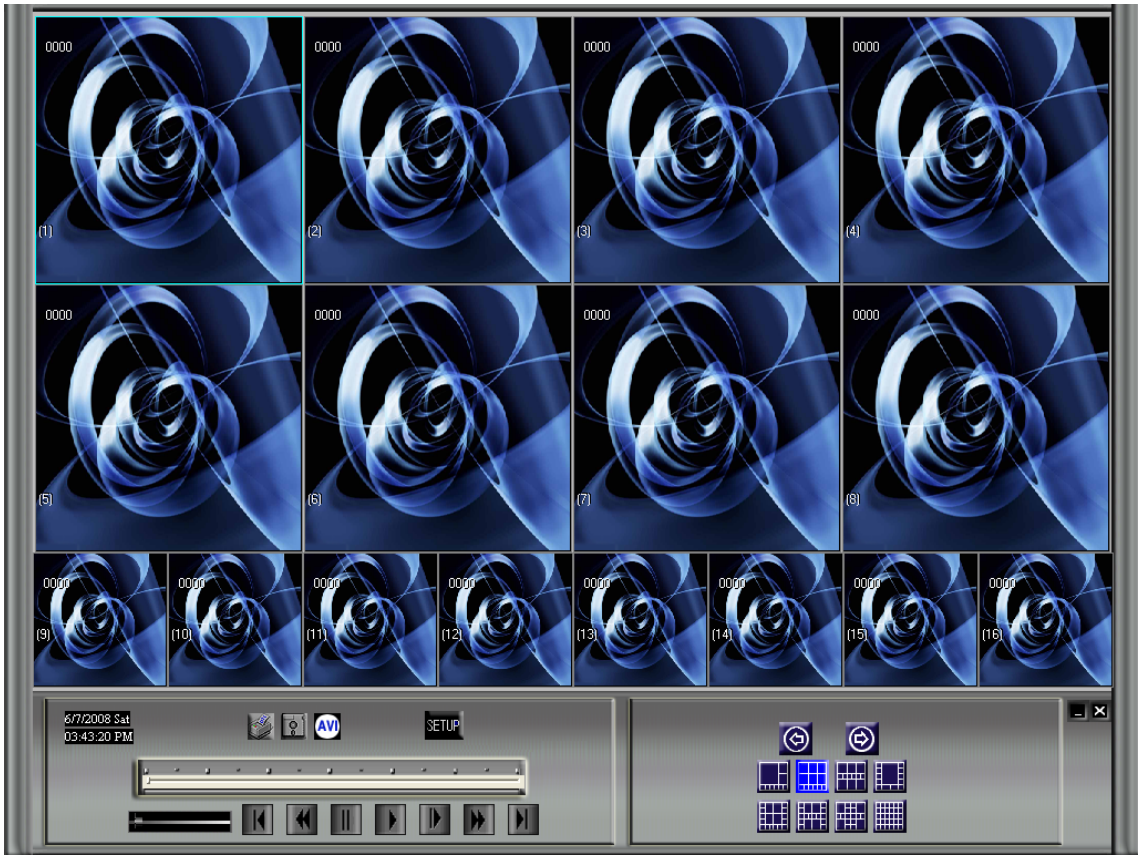
6-7. POWER: OFF

This function turns ON or OFF the power for the Bluetooth. Turn it on to access the Bluetooth. Be sure to turn it off when you are not using the Bluetooth function to save the battery.

II. Remote Access and Data Search/Playback Program

After installing the Program to your computer in remote places from the Self-Guards, you can connect as many as 40 other Self-Guards to your computer simultaneously by LAN. Also, 100 remote computers can simultaneously connect to a Self-Guard. Once the remote connection is completed, you can see and hear the live image and audio of the Self-Guards, and save those image and audio in your computer. You can also copy the data saved in the Self-Guard to your computer. In addition, you can playback the data saved in the Self-Guard with your computer. With this program, you can access all the information coming from the Self-Guard’s locations with your computer from anywhere in the world. You can copy the data saved in the Self-Guard to the MICRO SD or USB memory, and then copy this data to your computer to search or playback.

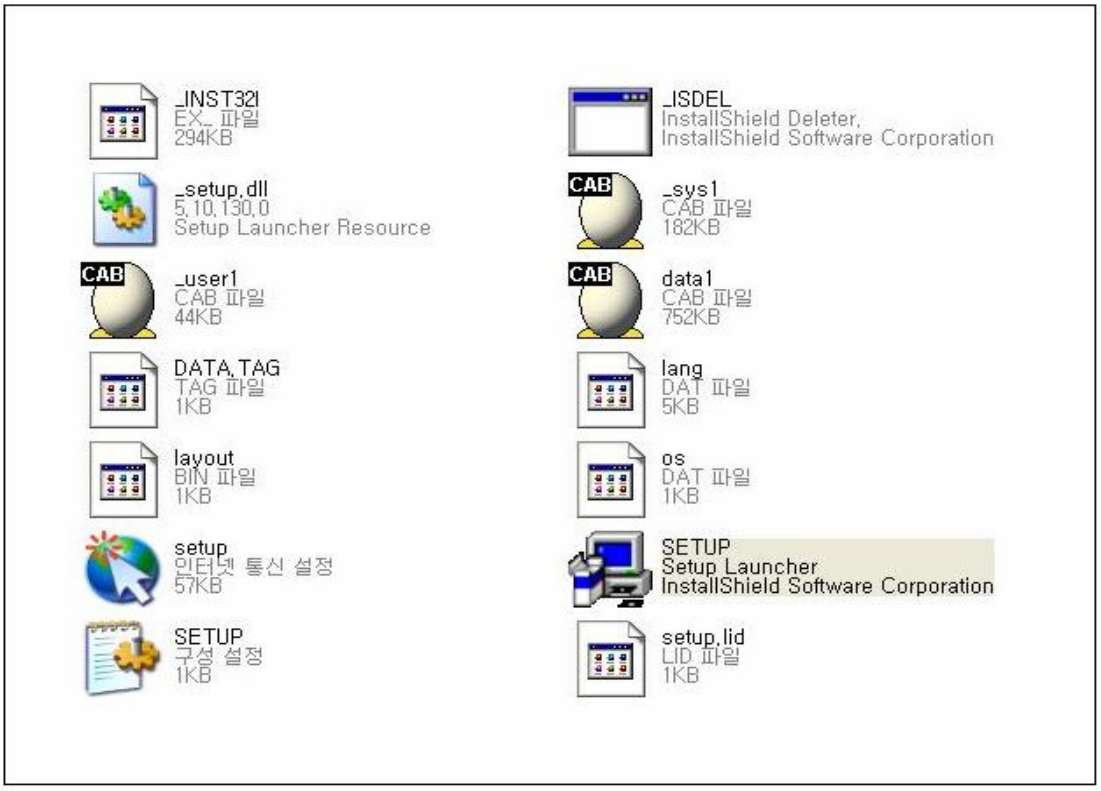
After installing the program in your computer, you will see an icon for the program. Point the mouse to this icon and double-click the left side of the mouse. And you will see a window as below,.



You can install the program to your computer with the provided CD.

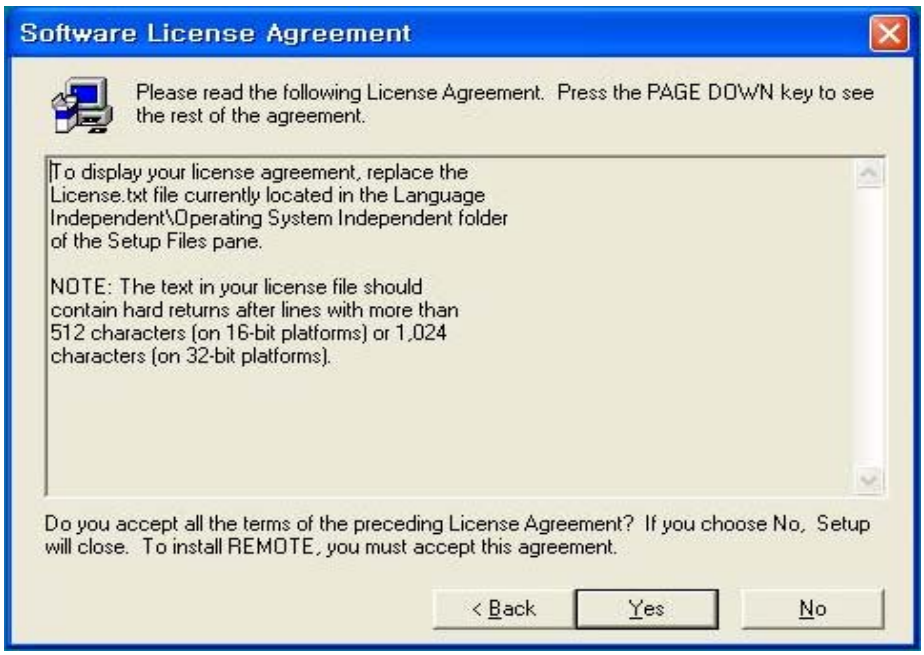
II-1. How to install

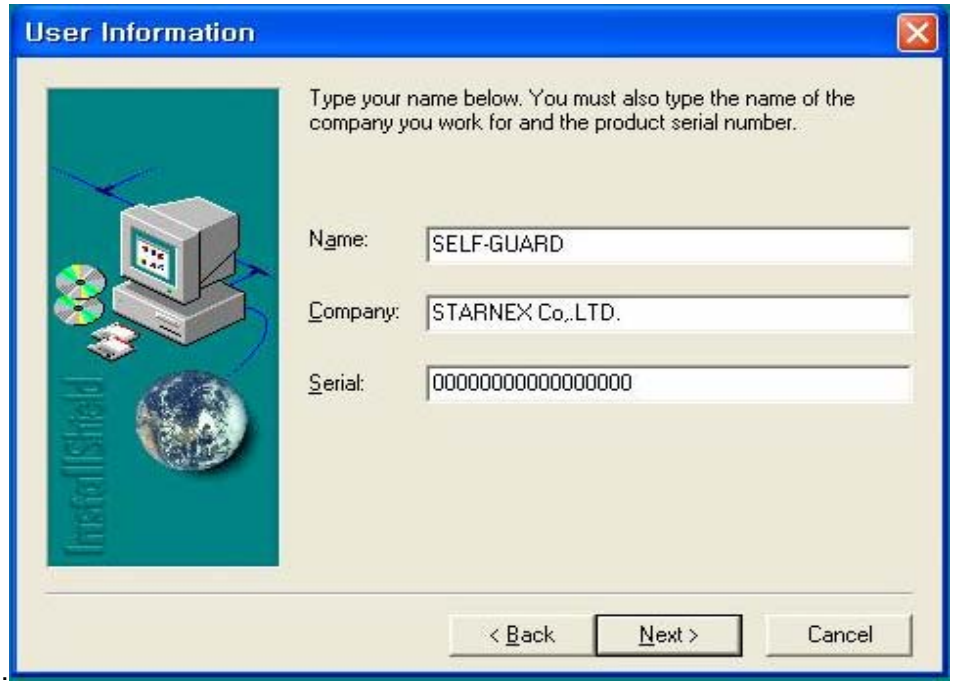
Insert the CD into the CD-ROM, and check the files below.



To install the program, double-click SETUP icon. Then a new window appears as below, and starts installing the program.

Welcome
Welcome to the REMOTE Setup program. This program will install REMOTE on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
Next >
Cancel
InstallShield

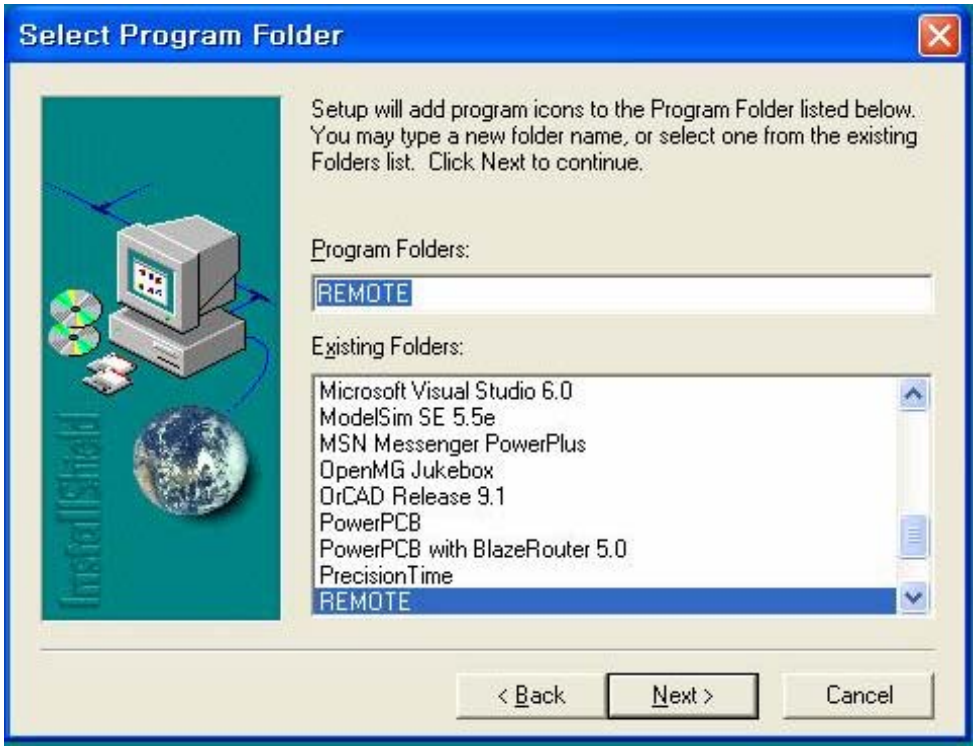

Software License Agreement
Please read the following License Agreement. Press the PAGE DOWN key to see the rest of the agreement.
To display your license agreement, replace the License.txt file currently located in the Language Independent\Operating System Independent folder of the Setup Files pane.
NOTE: The text in your license file should contain hard returns after lines with more than 512 characters (on 16-bit platforms) or 1,024 characters (on 32-bit platforms).
Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install REMOTE, you must accept this agreement.
< Back
Yes
No

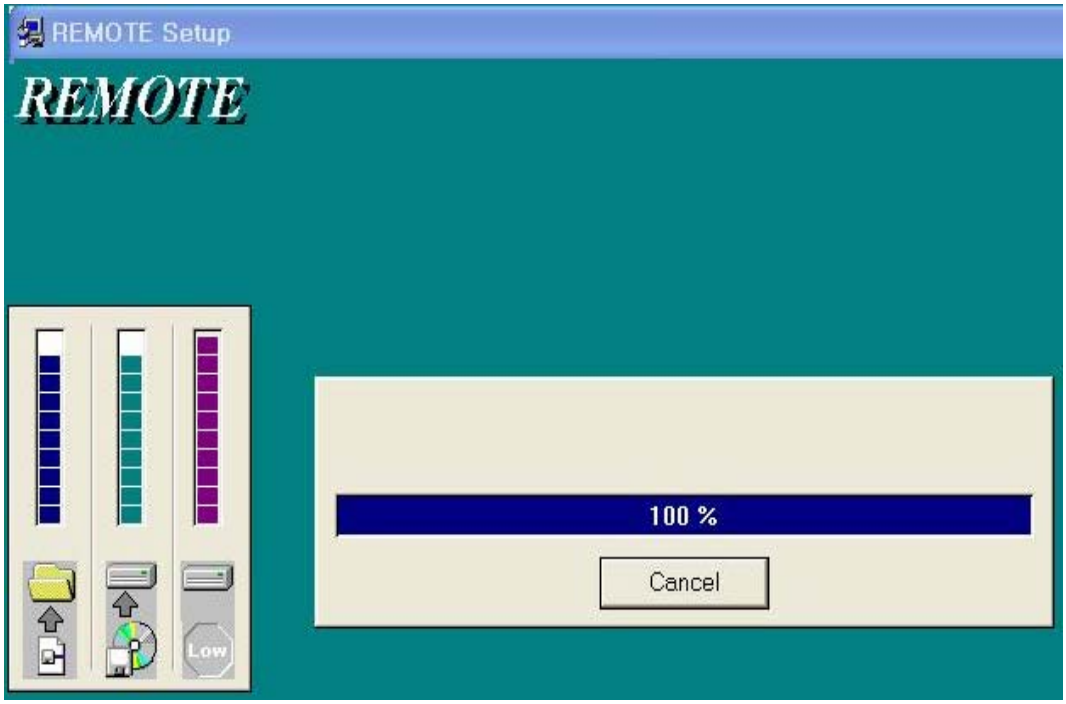


Type in the serial number and you can get this number from the back of your Self-Guard where the battery is placed in.

Choose Destination Location
Setup will install REMOTE in the following folder.
To install to this folder, click Next.
To install to a different folder, click Browse and select another folder.
You can choose not to install REMOTE by clicking Cancel to exit Setup.
Destination Folder
C:\Program Files\STARNEX\REMOTE
Browse...
< Back
Next >
Cancel
InstallShield

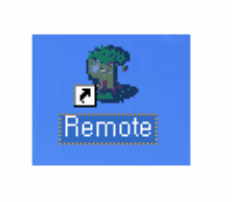
Select Components
Select the components you want to install, clear the components you do not want to install.
Components
Program Files 3768 K
Description
Change...
Space Required: 3768 K
Space Available: 2096832 K
< Back
Next >
Cancel
InstallShield



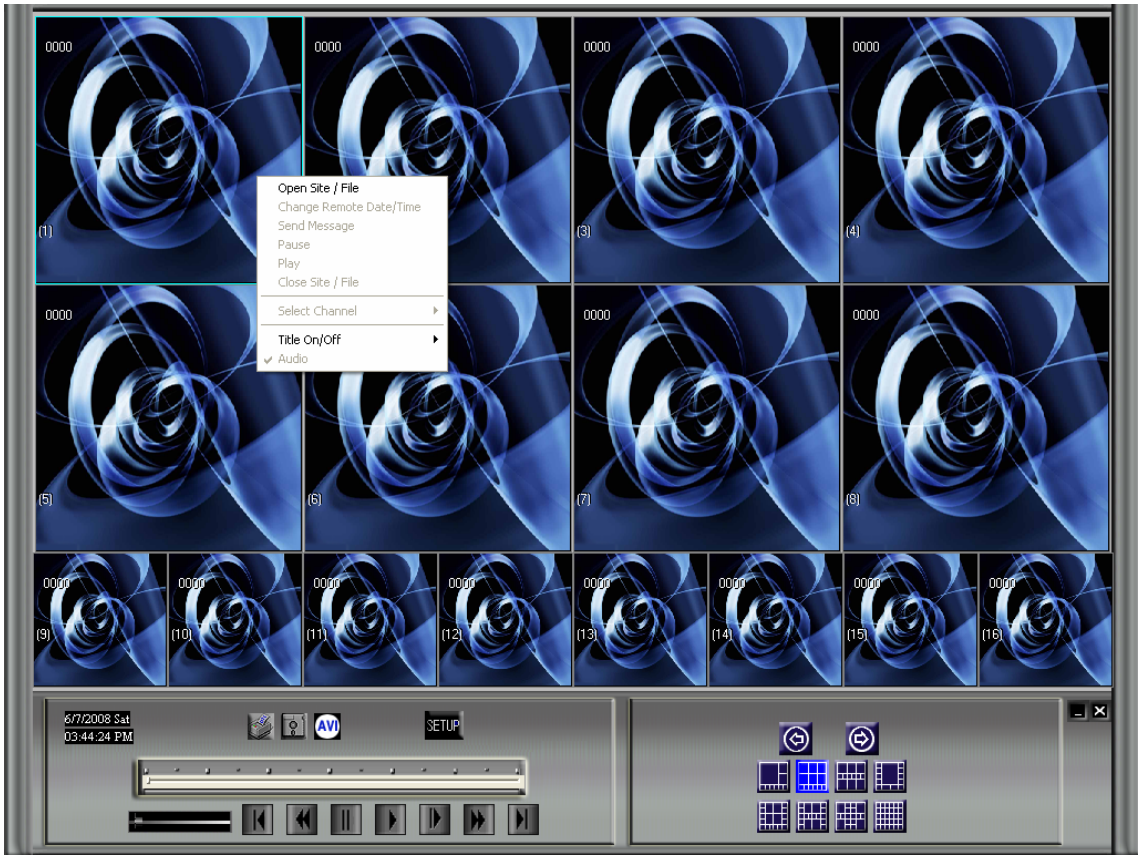


When the processes above are finished, then the program installment is completed.

Now you will see an icon for the program on the ground screen.



Point the mouse to this icon, and double-click left side of the mouse, then a new window appears as below and starts the program.

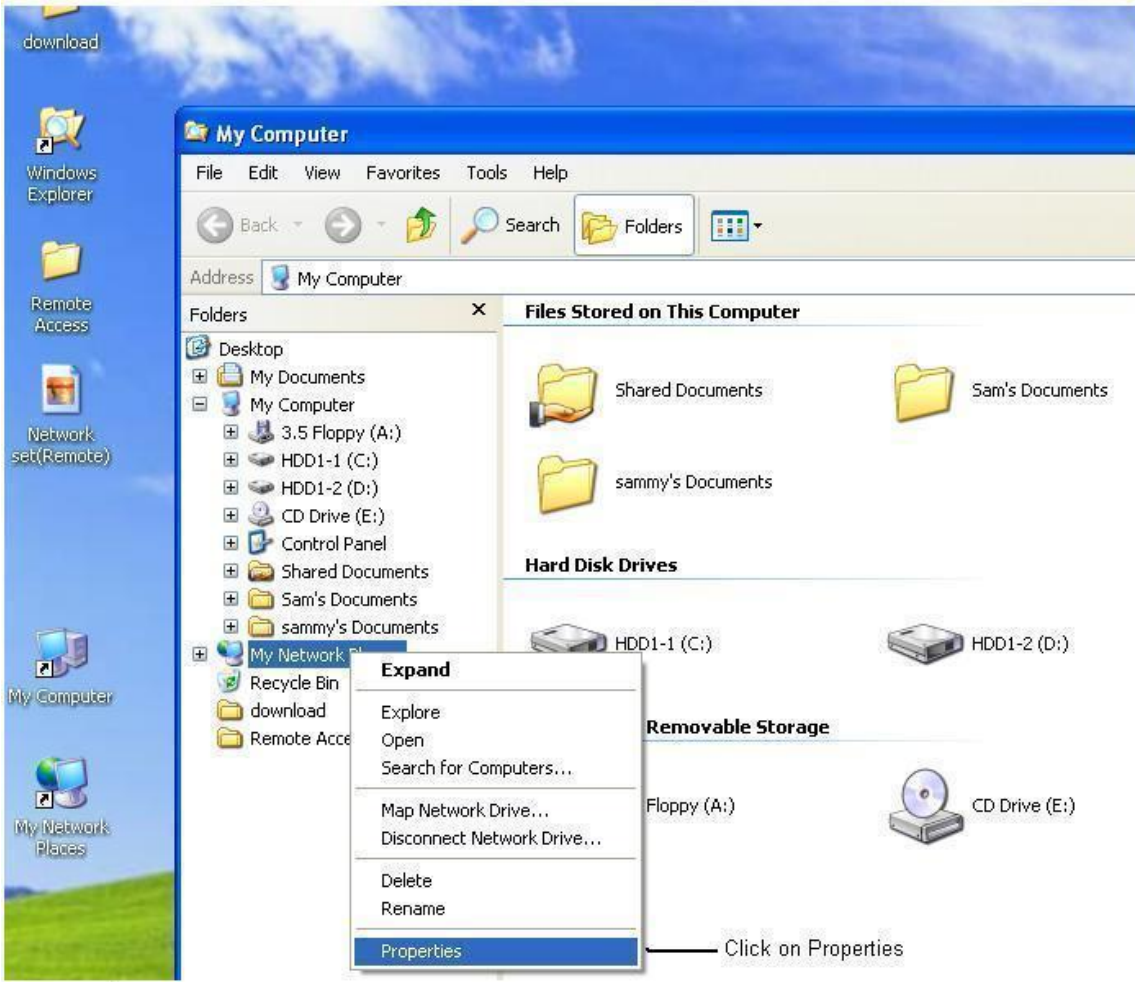


Of the many windows, move the mouse point to the window that you want to connect to, and click the right side of the mouse, and select one of the options from “Open Site/File”, “Change Remote Date/Time”, “Send Message”, “Pause”, “Play”, “Close Site/Data”, “Select Channel”, “Title on/off”, and “Audio”. Select “Open Site/File” to connect to the Self-Guard by LAN.

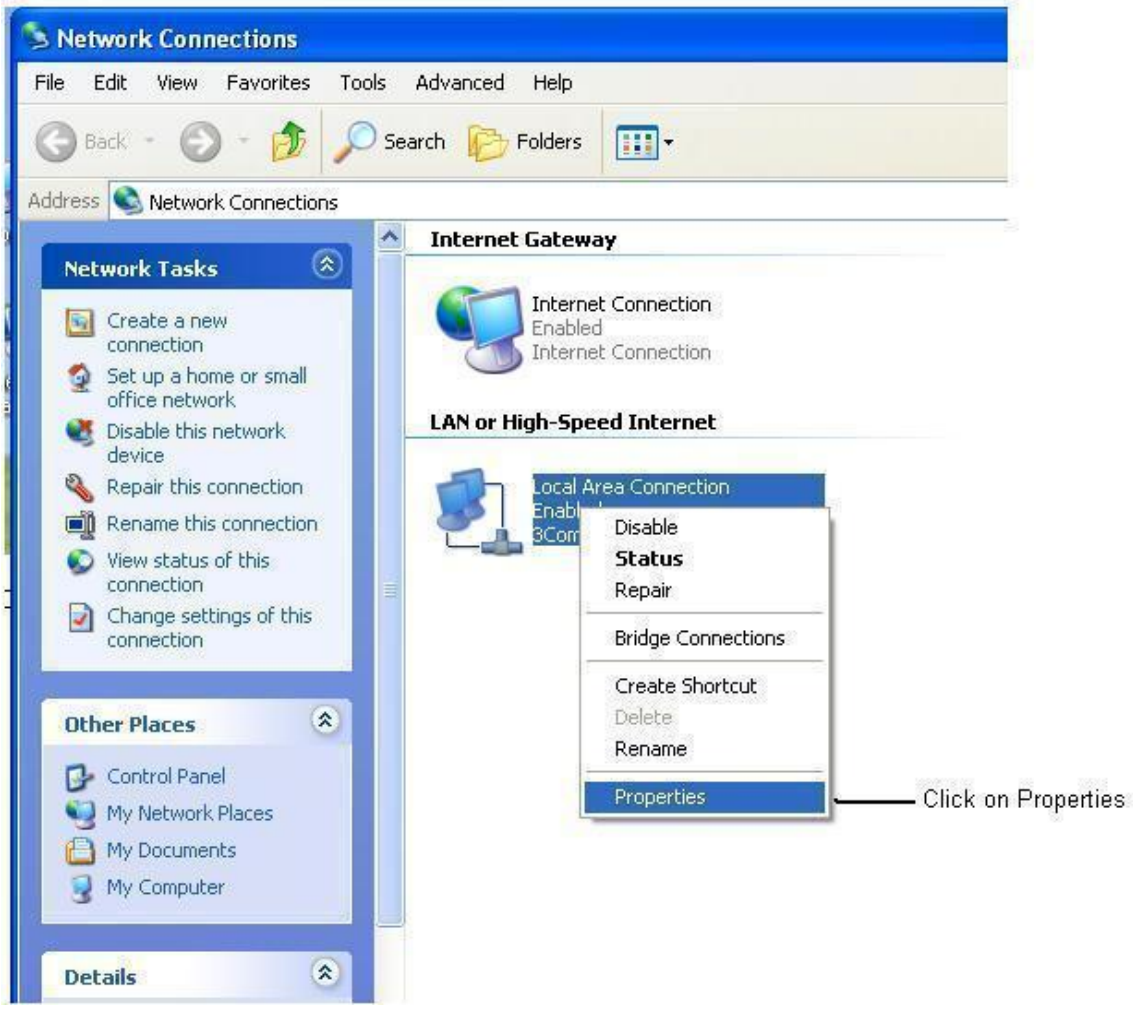
Then, you should follow next instruction regarding Network Setting.

II-2 Network Setting

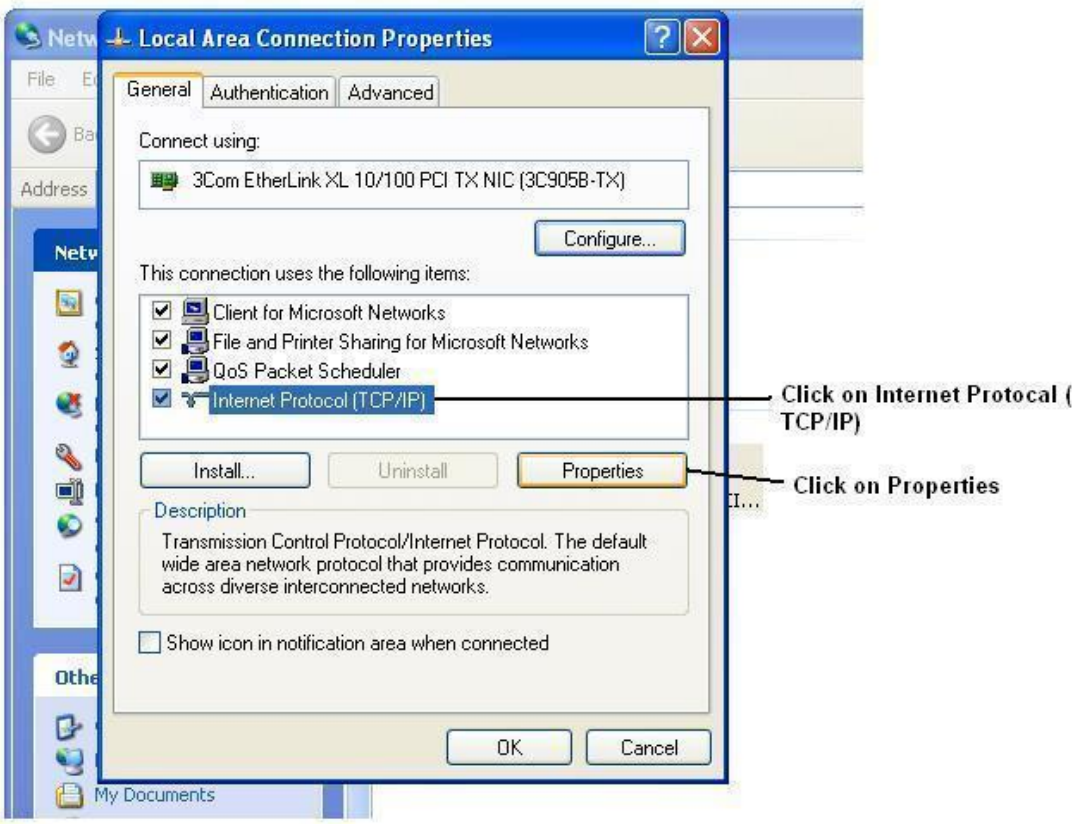
STEP 1



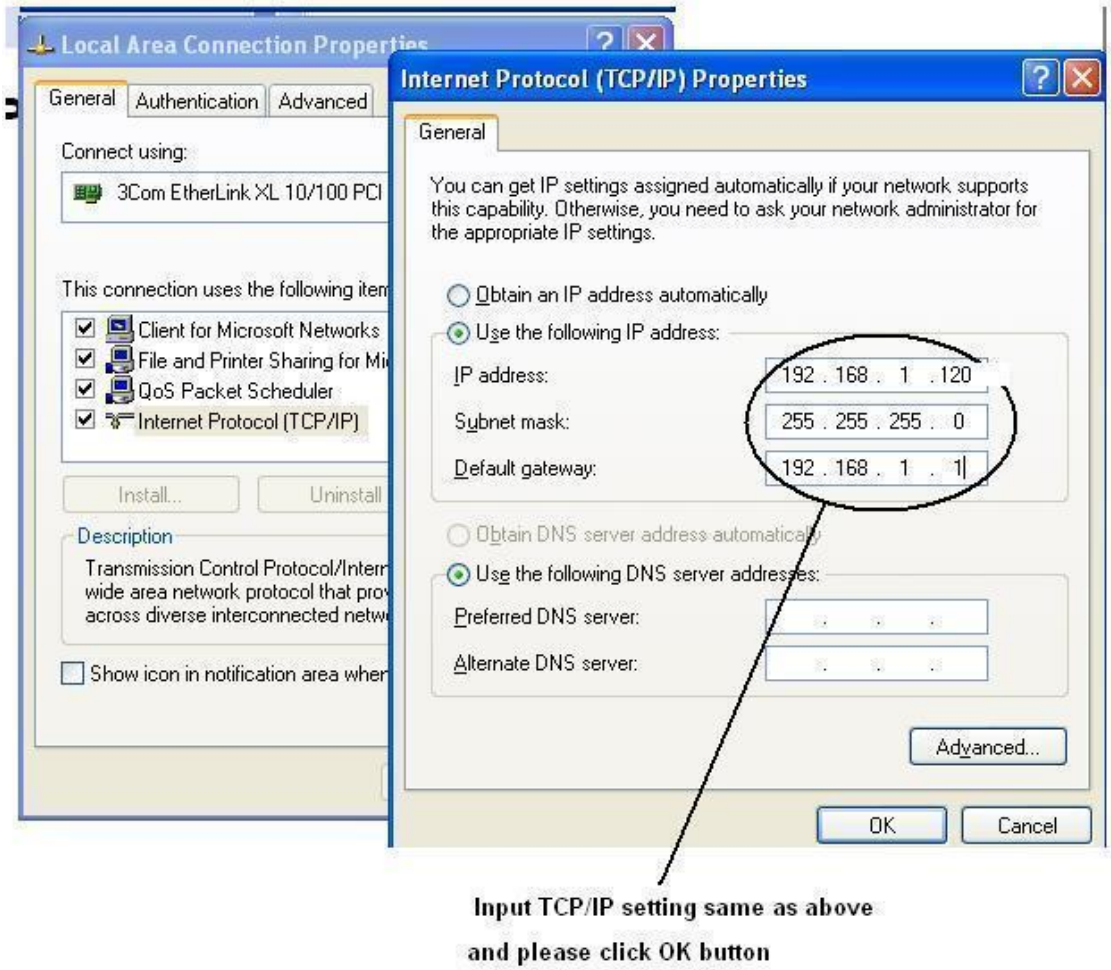
STEP 2


Network Connections
File Edit View Favorites Tools Advanced Help
Back Search Folders
Address Network Connections
Network Tasks
Create a new connection
Set up a home or small office network
Disable this network device
Repair this connection
Rename this connection
View status of this connection
Change settings of this connection
Other Places
Control Panel
My Network Places
My Documents
My Computer
Details
Internet Gateway
Internet Connection
Enabled
Internet Connection
LAN or High-Speed Internet
Local Area Connection
Disable
Status
Repair
Bridge Connections
Create Shortcut
Delete
Rename
Properties
Click on Properties

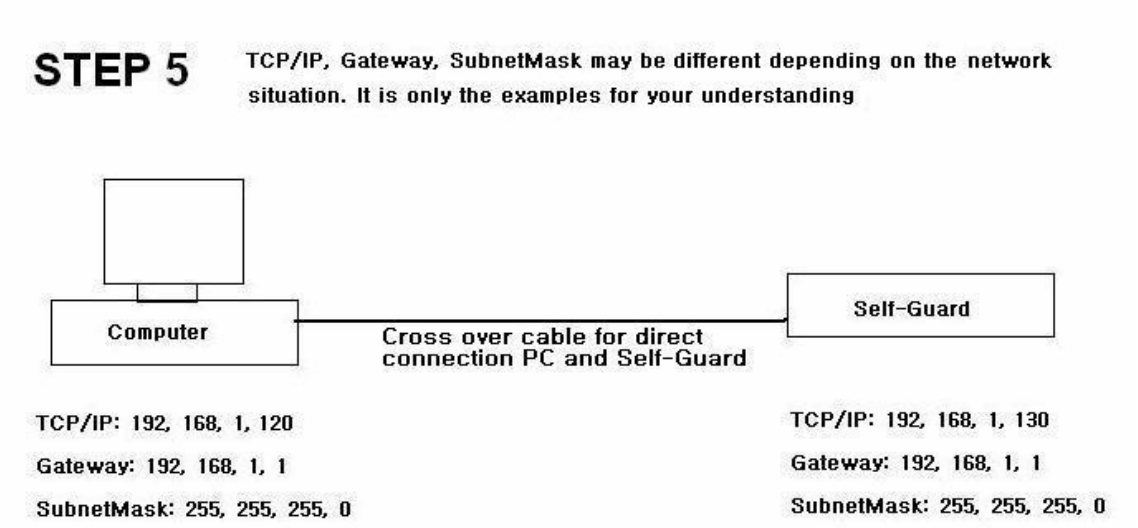
STEP 3


Local Area Connection Properties
General
Authentication
Advanced
Connect using:
3Com EtherLink XL 10/100 PCI TX NIC (3C905B-TX)
Configure...
This connection uses the following items:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
QoS Packet Scheduler
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
OK
Cancel
Click on Internet Protocal (TCP/IP)
Click on Properties

STEP 4


Local Area Connection Properties
General
Authentication
Advanced
Connect using:
3Com EtherLink XL 10/100 PCI
This connection uses the following item
Client for Microsoft Networks
File and Printer Sharing for Mi
QoS Packet Scheduler
Internet Protocol (TCP/IP)
Install...
Uninstall
Description
Transmission Control Protocol/Intern
wide area network protocol that prov
across diverse interconnected netwo
Show icon in notification area when
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 1 . 120
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 1 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

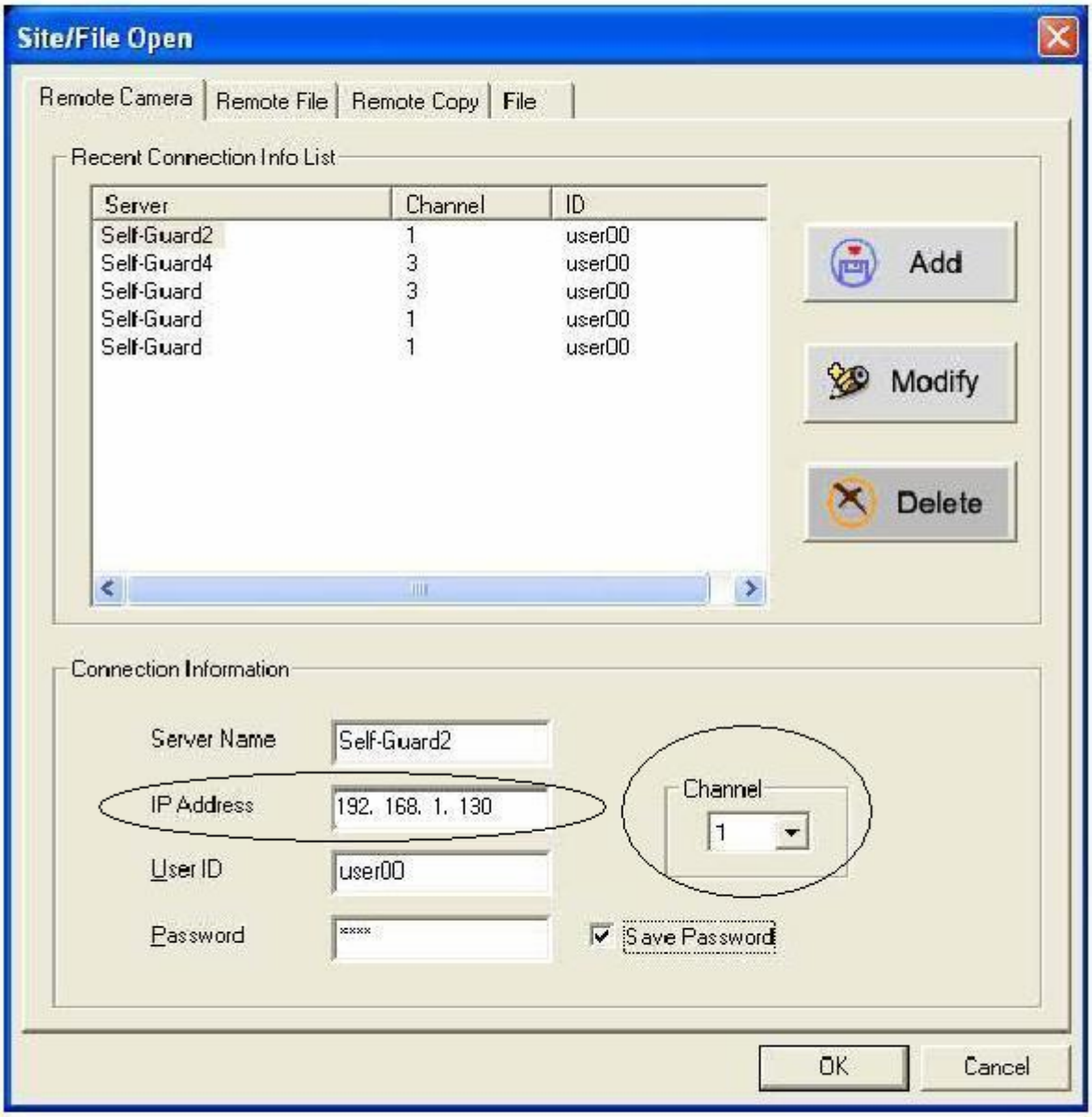
Input TCP/IP setting same as above and please click OK button


STEP 5
TCP/IP, Gateway, SubnetMask may be different depending on the network situation. It is only the examples for your understanding
Computer
Cross over cable for direct connection PC and Self-Guard
Self-Guard
TCP/IP: 192, 168, 1, 120
Gateway: 192, 168, 1, 1
SubnetMask: 255, 255, 255, 0
TCP/IP: 192, 168, 1, 130
Gateway: 192, 168, 1, 1
SubnetMask: 255, 255, 255, 0

Make sure that TCP/IP Settings on your PC don't match with that of Self-Guard's in order to avoid mix-up. However, notice that IP Address in Connection Information of Data Search / Playback Program has to match with that of Self-Guard's.

STEP 6

Run "Self-Guard" Remote Software and input IP, User ID and Password



If you cannot connect to the external camera, please check the Channel number on the right hand corner

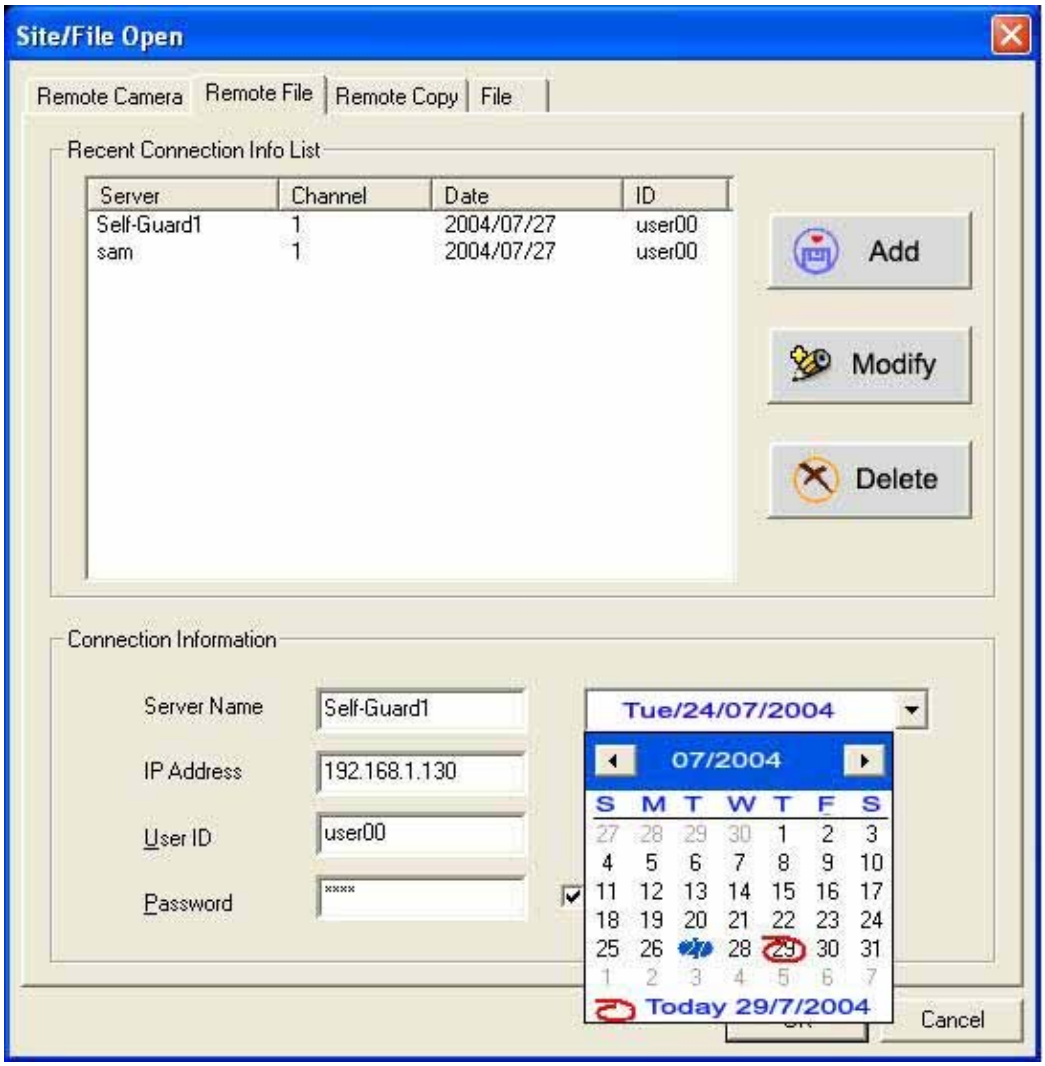
II-3. Remote Monitor and Save

This function allows you to see and hear the image and audio being recorded in the Self-Guard, and save these data to your local computer.

"Server Name": Type in the name of the Self-Guard that you want to connect to. (It is the name for you to distinguish from several Self-Guards connected)
"IP Address": Type in the IP Address of the Self-Guard that you want to connect to.
"User ID": Type in the registered ID of the Self-Guard that you want to connect to.
"Password": Type in the registered password of the Self-Guard to connect to
"Channel": Select the camera number of the Self-Guard that you want to connect to. (You must select a camera number, which is connected to the Self-Guard, or an error message appears, if you select a camera number not connected to the Self-Guard.).
For the SG-3000 model, when slave Self-Guards are connected to the master Self-Guard, then Bluetooth number is shows on "Channel", so you can select number that you want to connect.

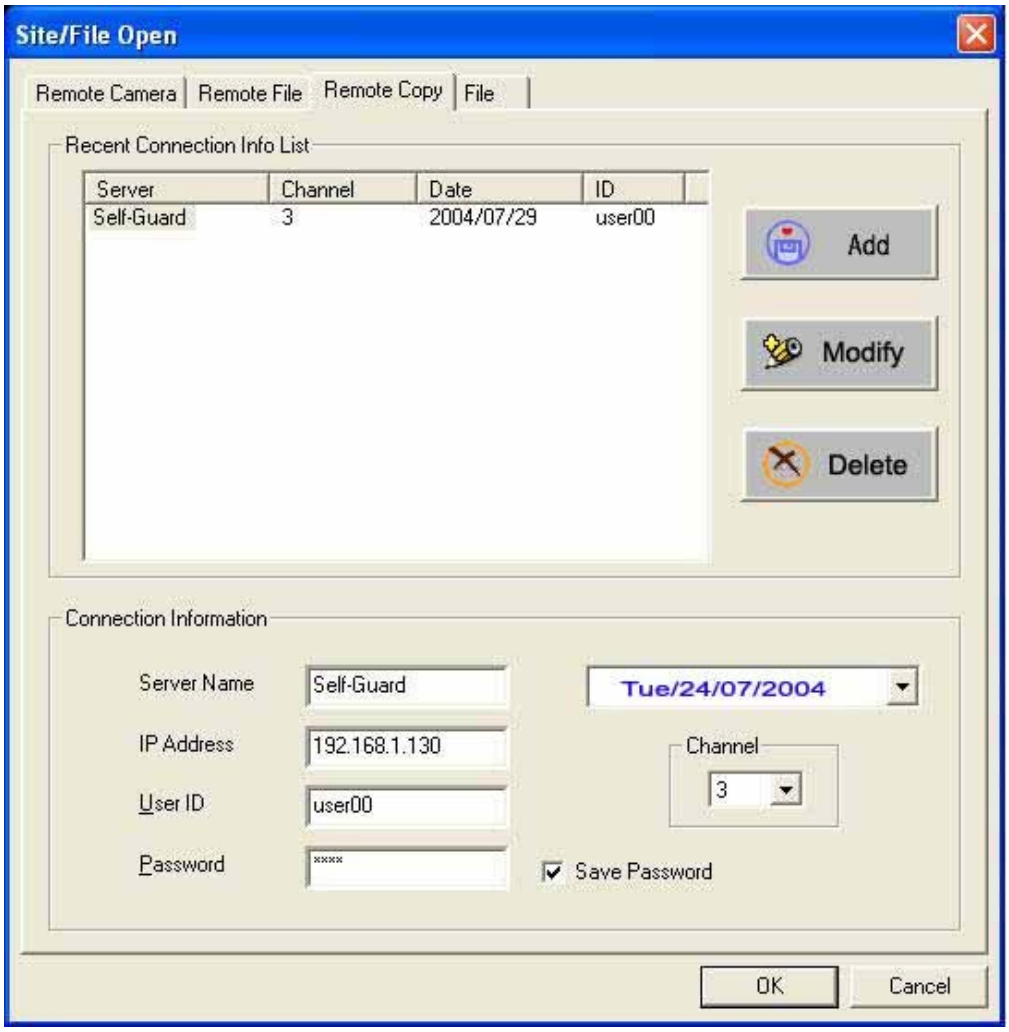
After that, click "OK" button, then you are connected to the Self-Guard from your local computer. You can add, modify, and delete the "Server Name", "IP Address", "User ID", and the "Password".

II-4. Remote File Playback



This function allows you to play the data stored in the Self-Guard with your computer by the date, time, and the camera channel. If you click the bar with a date, then you will see a calendar. Select the date you want and click “OK”, then you can playback the data saved in the selected date. If there is no data for the date which you selected, then you will see an error message.

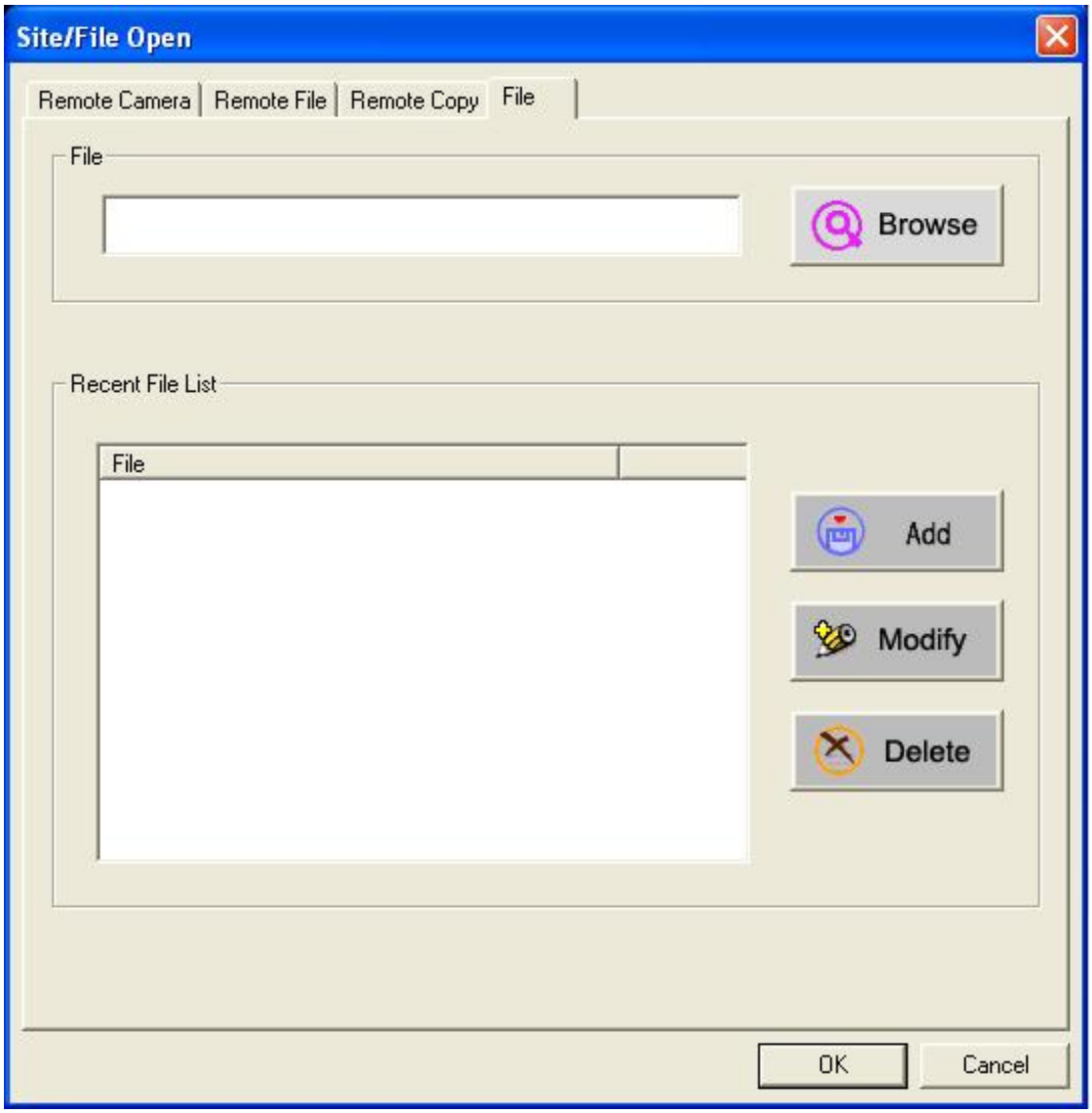
II-5. Remote File Copy



This function is to copy data stored in the Self-Guard to your local computer. Enter the Self-Guard's IP Address, User ID, Password, and select the date and channel number, which you want it to be connected, then press "OK" button to get the list of files come under the date and camera channel number of that certain Self-Guard. Select a file, designate a folder for saving, and press "COPY" button, then a new folder for that date gets created under the designated folder.

For example, if you select a file, which was created at 18(hour) 30(min) 57(sec), and copy this file to your computer, then you will see two files created, 18305701.sgv and 183057.sga under the date's folder. "sgv" file is an image or video file, and "sga" is an audio file. If there is no data saved in the Self-Guard for the selected date, then you will see an error message on the screen.

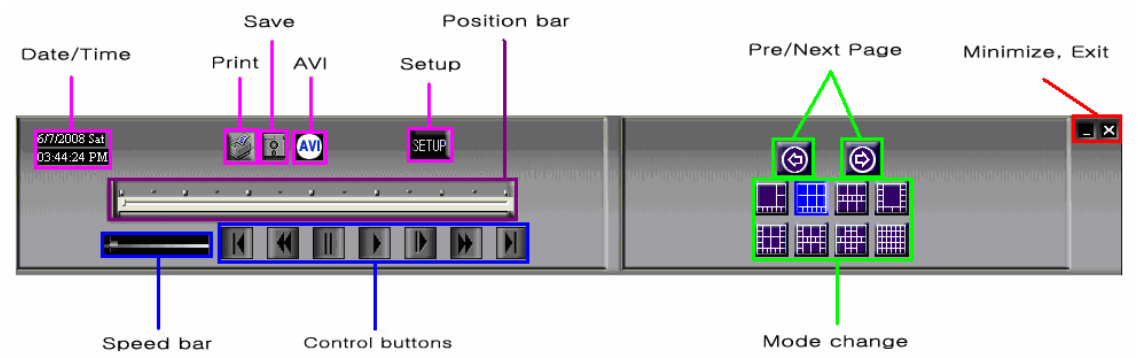
II-6. File Search and Playback



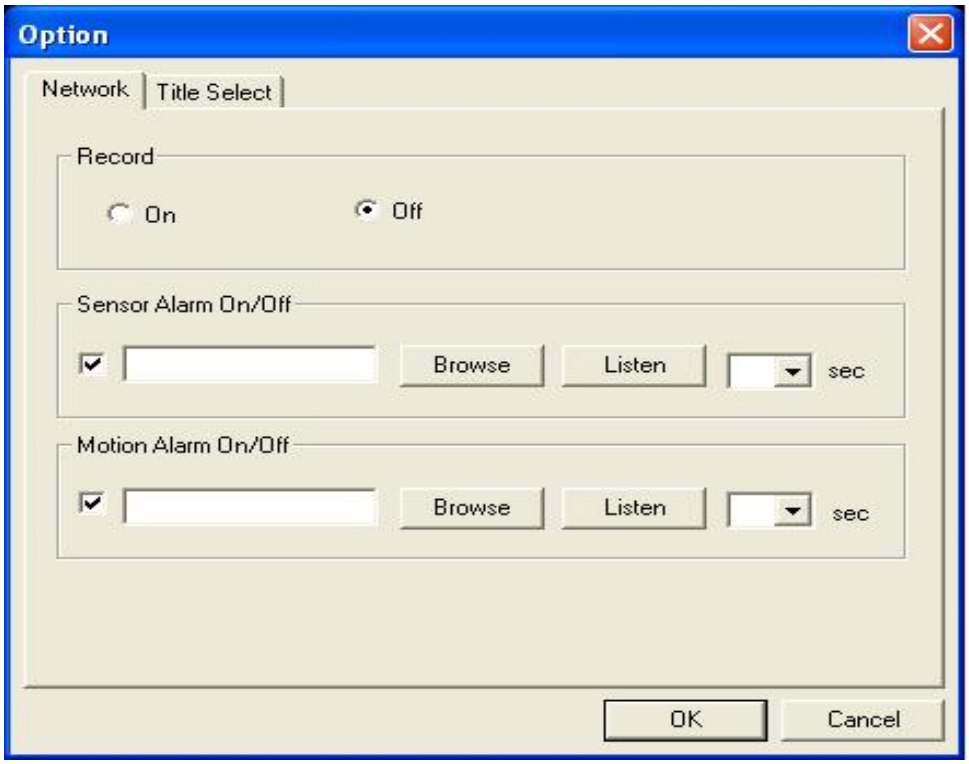
This function enables you to playback the data, which is stored in your computer. You can use the speed bar and the control buttons while you playback the data.

Click “Browse” and select the folder and data that you want to playback, and then click “OK”. For example, select “C:\Sellf-Guard\20040701\03050701.sgv” and then click “OK”.

II-7. Other functions



a. SETUP

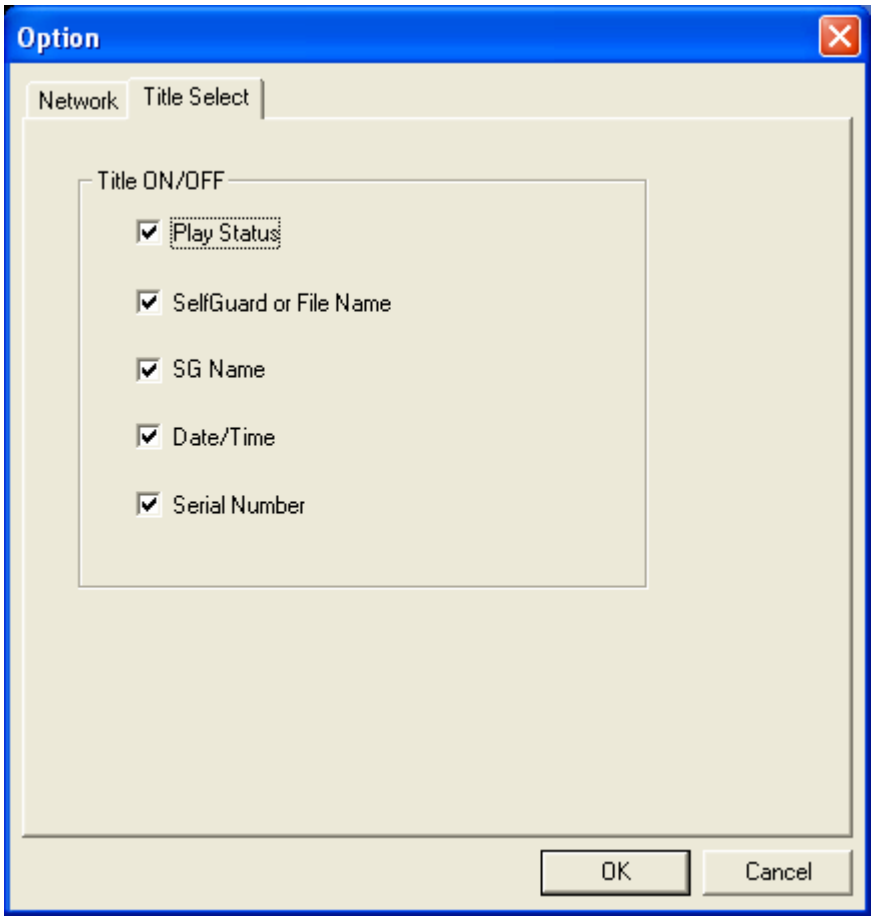


"Record": You can choose to record or not to record the image and the audio which are being recorded in the Self-Guard connected to your local computer.

"Sensor Alarm On/Off": If the state of a sensor of the Self-Guard is changed, then you can choose to notify with an alarm to your local computer. Select an alarm (wave

data) from “Browse”, and listen to the sound before you decide the alarm sound. You can set the duration of the alarm from 0 to 10 seconds.

“Motion Alarm On/Off”: If Self-Guard detects a motion by the motion detection algorithm, then you can choose to notify with an alarm to your local computer. Select an alarm (wave data) from the “Browse” and listen to that sound before you decide according to your preference. You can set the alarm duration from 0 to 10 seconds.



When your local computer is connected to the Self-Guard by LAN, you can choose to display the “Play status”, “SelfGuard or File Name”, “SG Name”, “Date/Time”, and the “Serial Number”.

b. Date/Time

Shows the date and time of your computer

c. Print , Save

If you pause the video, then you can print or save an image in JPEG format. Also, you can print the data with the extension name of “snp”, or save it in the JPEG format.

d. Position bar, Speed bar

The position bar is one hour long, and indicates of the current position of the whole playback time. “Speed bar” is to control the speed of the playback.

e. Control buttons

These control buttons are to control the following functions when you playback the data saved in your computer; Playback, Playback frame by frame, Fast-rewind, Fast-forward, Go to the start of the file, Go to the end of the file.

f. Mode change

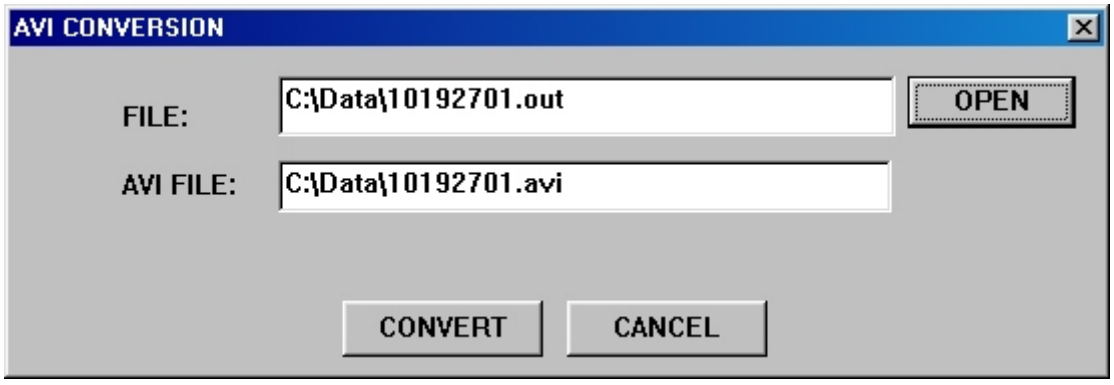
You can decide on how many images to be displayed on your computer’s monitor. There are 8 displaying modes when viewing the images of the Self-Guard with your computer. If you want to magnify a certain image, then point the mouse to that image and click the left side of the mouse. If you click on that magnified image again, then the image returns to the previous size.

g. Pre/Next page

At each displaying mode, if you want to see other channels instead of the current channels on the monitor, click this button to go to the previous or to the next page.
For example, if you are connected to 40 locations of the Self-Guards, but if you set it to 9 displaying mode, then you can only see nine locations in the monitor. But, you can use this button to see the rest of the Self-Guard’s locations in nine channels at a time.

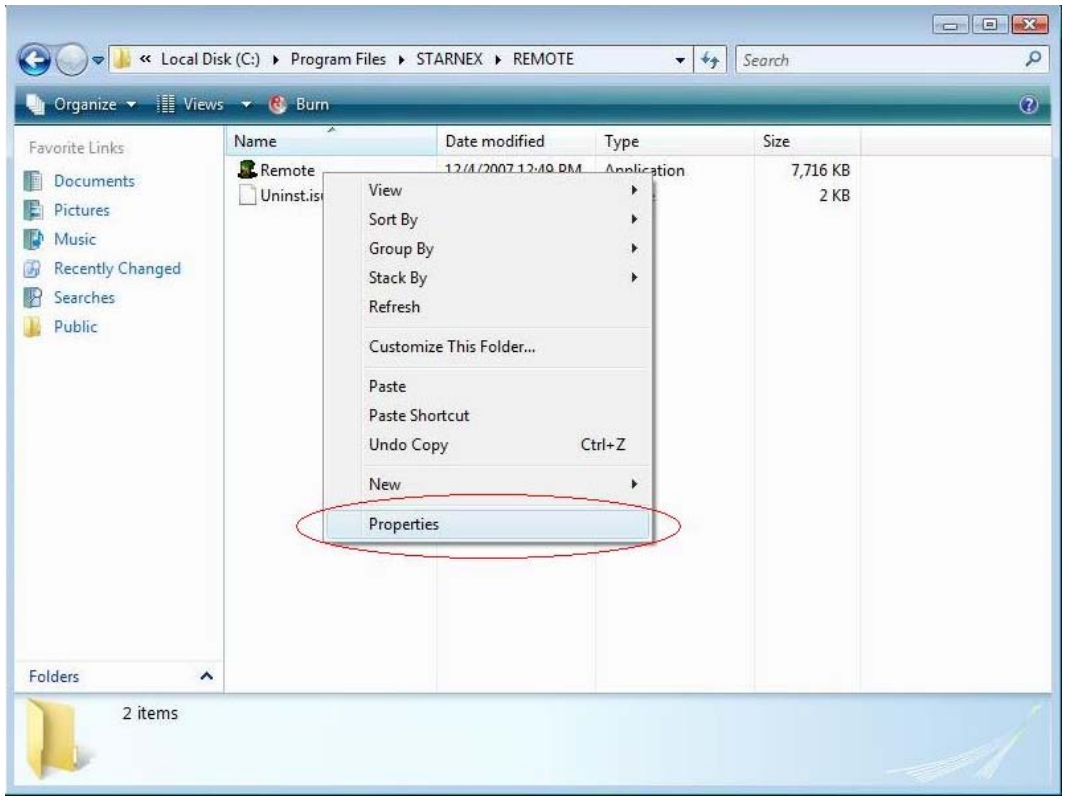
h. AVI Conversion

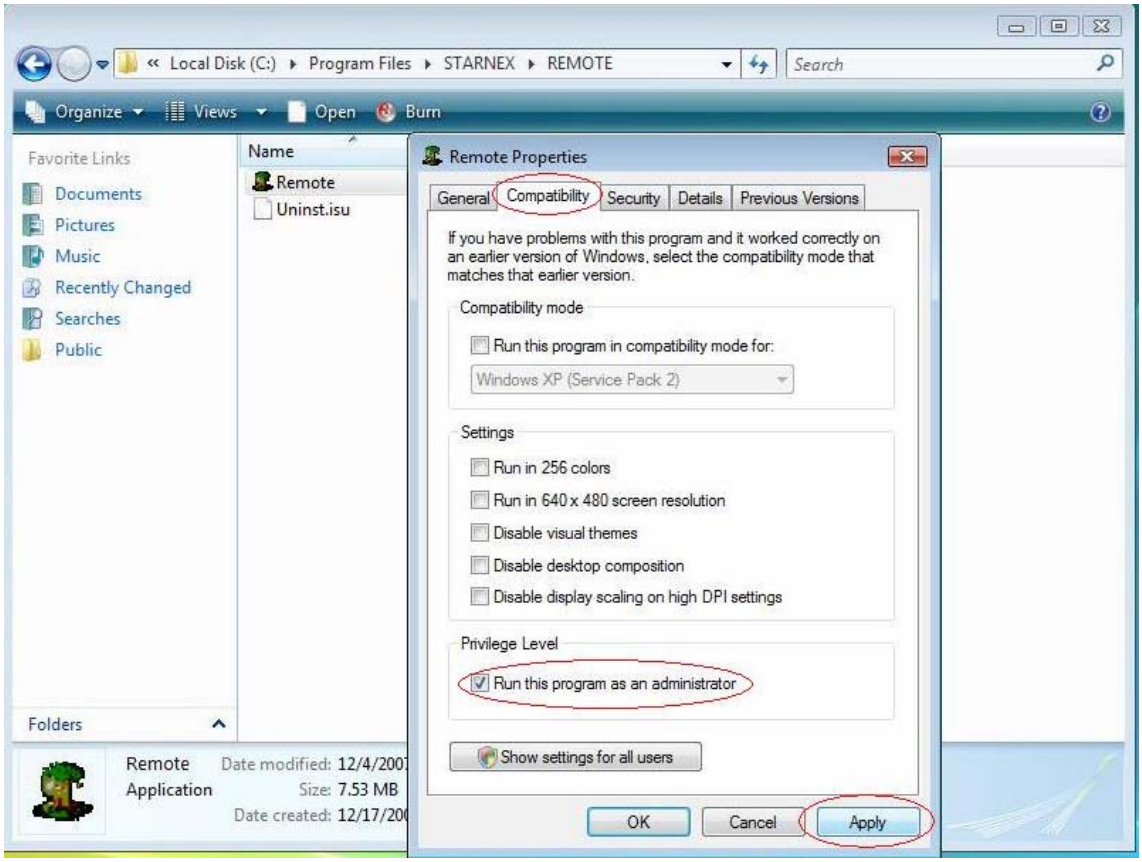
This is to convert a file for the use of Self-Guard to a file in AVI format.



Click on the “OPEN” button to select a file to be converted to AVI file format and click “CONVERT”.

※ If you use “Window Vista” in your PC, please make sure this program runs as an administrator in order to covert files into AVI files.





i. Minimize/Exit

”Minimize” is to minimize the window of the Data Search and Playback Program, and “Exit” is to exit from the Program.

III. OTHERS

III-1. How to use Button Camera

* *How to connect Button Camera to the Self-Guard*

1. Press ENT button for 2-3 seconds to turn on the unit.
2. Attach button camera directly to the "Connector to Docking" slot on the bottom of Self-Guard unit.
3. Turn ON the "OPTION" → "CAMERA SET" → "BUTTON CAM" function using the left or right direction buttons.
4. You are turning OFF all the internal camera and microphone when you turn ON "BUTTON CAM" function. If you want to use internal (button) camera(s) or microphone together with the button camera (external), then you need to go into the "CAMERA SET" and turn ON the internal camera and go to "AUDIO SET" to turn ON the internal microphone.
5. When you switch ON the remote On/Off switch, it goes into recording mode and starts recording. When you witch OFF the remote On/Off switch, it stops recording and goes into sleep mode. (*Note: From the option menu, when you turn ON the "BUTTON CAM" function, it will go into either recording mode(ON) or sleep mode(OFF) depending on the status of the remote ON/OFF switch.
6. If you want to search and playback files when the button camera is connected to the unit, press ESC button to go back to the main menu and then go into the SEARCH mode.

* *How to remove Button Camera from the Self-Guard*

1. Press ESC button to go back to the main menu, and Turn OFF the "OPTION" → "CAMERA SET" → "BUTTON CAM" function.
(You are automatically turning back ON all internal camera(s) and microphone you have turned on before using button camera.)
2. Remove the Button Camera from the Self-Guard unit.
3. Press ESC button for 2-3 seconds to turn off the unit.

* When you record using the button-hole camera, please allow 1 or 2 seconds to adjust its auto-focus and color balance.
* To use external cameras other than the button-hole camera, use A/V cables provided with SG-110, 210, 310, 1000, 2000, 3000 and follow above instructions. (Please note that other external cameras might need their own power inputs.)

TROUBLESHOOTING GUIDE

- **Self-Guard shuts down its power for no reason.**

The Self-Guard automatically turns off the power or goes into the power-savings mode if you don't press any button for a certain amount of time (1-9 minutes). This does not indicate malfunction of the system. In "RECORD" and "TRANSMIT" modes, Self-Guard turns off only the LCD, battery status LAMP, and recording status LAMP to save the battery. But, in the rest of the modes except for "RECORD" or "TRANSMIT", it turns off the power completely. Set the time to 0 to deactivate "AUTO POWER OFF" function.

Caution: To maximize the life of the battery, do not turn off "AUTO POWER OFF" function.

- **I was unable to connect the Self-Guard to the network with the provided remote connection program. (Professional Version_SG-1000/2000/3000)**

1. In the menu "OPTION", select "REMOTE SET" and set "LAN SET" to on.
2. First, confirm the network's IP address connected to the Self-Guard. Then, select "SET IP ADDR" from the menu "REMOTE SET" of the menu "OPTION", and put in the correct IP address. When connecting the Self-Guard to the network with the remote connection program, put in the same IP address that you have used for "SET IP ADDR".
3. From the menu "OPTION", select "OTHERS", and then select the "POWER SET", set both "SAVE AC" and "SAVE BAT" to OFF.
4. The Self-Guard can only be connected to a remote computer when it is either in "RECORD" or in "TRANSMIT" mode. So, check if the Self- Guard is in either of those two modes.
5. Exit from the remote connection program, and restart the program.

- **Self-Guard is connected to the network, but I cannot access from my computer to external cameras of the Self-Guard. (Professional Version_SG-1000/2000/3000)**

From the "Channel" selection part in the remote connection program, select the camera number that you want to connect the Self-Guard with. Among the six camera numbers, camera numbers "1" and "2" are the internal cameras, and "3" to "6" are the external cameras. But you can only access the cameras that are connected to the Self-Guard and turned on.

- **Battery power fades quickly.**

1. An external monitor can only be used in the "SEARCH" mode. If you don't need an external monitor, select "EXT MON SET" from the menu "OTHERS" of the menu "OTHERS", and set it off.
2. When you don't need to access the LAN, select "LAN" from the menu "REMOTE SET" of the menu "OPTION", and set it off.
3. When you are not using the Bluetooth function, set "POWER" to off from the menu "BLUETOOTH". (SG-3000 only)
4. If there exists some external cameras, which you are not using, then set off all those cameras from the menu "CAMERA SET" of the menu "OPTION".

- **If I connect the Self-Guard with the docking station or the adaptor, then the Self-Guard turns on its power automatically.**

Self-Guard has a function named, "automatic recovery function", and it automatically turns on its power when it is provided with external power sources. If there is an electricity (a power) failure, Self-Guard automatically starts to use the power from its battery. But the Self-Guard turns off its power, when it is not provided with the power from the adaptor for a long time, and uses up the whole battery. And as soon as the electricity is available to the Self-Guard, it automatically starts to charge the battery with electricity, and returns back to the modes just

before it turned off its power (“RECORD”, “TRANSMIT”, or to the initial mode). This function is very useful when you have installed the Self-Guard in the remote places far away from you. In the case that you have installed the Self-Guard in remote places, and there happens an electricity failure for some time and the electricity gets available to the Self-Guard again, then you have to go to where the Self-Guard is placed to turn it on, and to set it to the “RECORD” or “TRANSMIT” modes. But the Self-Guards have this “automatic recovery function”, and free the users from the burden.

- **Self-Guard’s image from the camera or recorded images are blurred.**

It may happen when there is dust or other particles on the camera lens, so you should carefully wipe out those dust and other particles at times with the rolled up soft fabrics or tissue.

- **I cannot go into magnification mode.**

You can only go into magnification mode in the case that “OPTION” mode → “OHERS” → “EXT MON SET” → “MON OUT” is set to off.

- **Audio gets interrupted when playback a file.**

This happens because Self-Guard records audio when there is a motion. If you want to record audio irrespective of motion detection, then turn on “AUDIO DET”. (“OPTION → “OTHERS” → “POWER SET” → “AUDIO DET”) This may result a large file size because Self-Guard will record audio regardless of motion detection from the camera when audio detection function is turned on.

- **I cannot make the Self-Guard to record.**

Set the Self-Guard to its default set. (“OPTION → “OTHERS” → “DEFAULT SET”)

Warranty Guide

This product has passed through quality control and testing. If this product shows any manufacturer's defects during normal use, then there is a 12 months warranty service period from date of purchase. Check this warranty sheet first. Please contact the distributor or dealer after checking out any problems in the product. The standard for repairing, replacement or reimbursement follows Customer.

Warranty Content

Any defects under normal use within the warranty service period we give you free repair service according to the warranty sheet.

We charge you with the fee of parts and services despite free warranty service period.

1. Any breakage made without care.
2. Breakage or trouble made by natural disaster.
3. Breakage or trouble made by breaking the product guide or manual.
4. Breakage or trouble made by wrong power voltage or frequency.
5. When you want to resemble for full system or replace parts within warranty service period.
6. When unauthorized engineer modified or made damage on the product trying to repair it, we may charge you with the fee.

We don't support the breakage after warranty service period. If the customer wants to get it repaired, we charge them with the fee.

Product Warranty Service Sheet

Product & Model name		
Product serial number		
Distributor or Agency		
Date you purchased		
Warranty period		12 months
Customer	Name	
	Address	

* This warranty sheet may not be provided again.
* Please fill out this sheet as soon as you purchase the product.
* You should show this warranty service sheet when you get a warranty service.